



LIST OF PLANTS

collected by P. A. Rydberg, during the summer of 1891, mostly in Western Nebraska.

very & com. by J. H. H.

RANUNCULACEAE.

1. Clematis licusticifolia, Nutt. - Climbing over bushes; common in Western Nebraska, rare in the eastern part of the state. It was collected by me, in 1889, in Saunders Co. - Cañon, south of Pumpkin Seed Valley, July 10; McColligan Cañon, D. Co. #), Aug. 22.
2. Anemone cylindrica, Gray. - Prairies, throughout the state. - Platte River Bottom in Kearney Co., June 15.
3. Thalictrum purpurascens L. - Near water. - Platte Bottom, Kearney Co., June 15; Little Medicine Creek, Frontier Co., June 22.
4. Ranunculus circinatus, Sibth. - In water. It is not contained in Mr. Herbert J. Webber's Catalogue of the Flora of Nebraska. - In Lodge Pole Creek, near Lodge Pole, Ch. Co., Aug. 29.
5. Ranunculus cymbalaria, Pursh. - In springs and creeks in Western Nebraska. - Pumpkin Seed Creek, B. Co., July 17; Spring in Pleasant Valley, S. B. Co., July 28; Horse Creek, Aug. 1.
6. Ranunculus sceleratus L. - In water, rare. - Horse Creek, S. B. Co., Aug. 1; Lodge Pole Creek near Sidney, Ch. Co., Aug. 19.
7. Ranunculus hispidus, Hook. - New to the Region, and, perhaps, new to the United States. In the revised edition of Gray's Manual the locality is given thus: "On the northern shore of Lake Superior, and north and westward; probably in N. Minn." - Only a few specimens were collected on an irrigated meadow, north of Kimball, K. Co., Aug. 12. When collecting it, I took it for a form of R. repens or of R. pensylvanicus, luxuriant because of the irrigation.
8. Delphinium azureum, Michx. - var. . . . . It differs from the type in being lower, in having the stem glandular hairy up to the raceme, and the leaves often with broader segments. On the hills north of Lawrence Fork, B. Co., July 9.

PAPAVERACEAE.

9. Argemone platyceras, Link. - Sandy soil; common throughout the Region. - Sand-draw in Deuel Co., June 28.

FUMARIACEAE.

10. Corydalis curvisiliqua, Eng. - I collected a few specimens of what I regard as belonging to this species among bushes in Lawrence Fork, July 8. The outer petals are wing-crested, the seeds are shining to the naked eye; but finely muricate under the lens.

Cruciferae.

11. Draba Carolina, Walt. - var. micrantha, Gray. - In fruit only; on high prairie land in Deuel Co., June 27.
12. Arabis Holboellii, Hornem. - A few specimens <sup>were</sup> collected in Pumpkin Seed Valley, B. Co., July 14, and one in Kiwa Valley, July 28. New to Nebraska.



13. Arabis sp. . . . . General appearance somewhat like *A. laevigata*; smooth and glaucous, branched above; root fusiform; stem-leaves lanceolate, entire, glabrous, not sagittate at the base; petals white, spatulate, twice as long as the whitish sepals; pods and root-leaves not seen. - Low meadow on the upper Pumpkin Seed Valley, July 17.

= *Brassica sinapistrum* Boiss.

14. (*Sinapis arvensis* L.) Throughout the state. - Rail road bank, Kearney Co. June 15.

15. *Erysimum cheirantoides* L. - Rail road bank, Kearney Co. June 15.

16. *Erysimum asperum* D.C. - Hills of Western Nebraska. - Deuel Co., June 25; Rush Creek, July 2; South of Scott's Bluff, July 23.

*incisum* Engelm

17. *Sisymbrium canescens* Nutt. var. . . . . . *The pubescens* is short and glandular as in *S. incisum*, Eng., but the seeds are in two rows. - On the top of Wild Cat Mountains, between 5,000 and 6,000 feet above the sea-level, July 16.

18. *Nasturtium obtusum* Nutt. - Not in Mr. Webber's Catalogue. - Unusually low specimens, collected on the sands of South Platte River, near Big Springs, D. Co., Aug. 25.

19. *Nasturtium palustre* Nutt. - In water. - Platte River, Kearney Co., June 15; Horse Creek, S. B. Co. #), Aug. 1, Lodge Pole, near Kimball, Aug. 12.

20. *Nasturtium curvisiliqua* Nutt. - I would have taken it for *N. sinuatum*, if it had not been to like the specimens of *N. curvisiliqua*, Nutt. from Colorado in the Herbarium of the University. - It is new to Nebraska. A few specimens were collected near a well 1 1/2 mile from the Wyoming line, July 31.

21. *Nasturtium sinuatum* Nutt. - Not in Mr. Webber's Catalogue. - Platte River, Kearney Co., June 15.

22. *Lesquerella Engelmannii* (Gray) Wats. - New to Nebraska. It was first collected by Mr. J. Flodman, who took it for a small form of *Physaria*, on the hills of the Upper Lawrence Fork, K. Co. #), Aug. 11.

23. *Lesquerella Ludoviciana* D.C. - It is not uncommon on the hills of Western Nebraska, and is usually branched from the root. - D. Co. June 25; B. Co. July 9; S. B. Co., Aug. 24.

24. *Physaria didymocarpa* Gray. - Not in Mr. Webber's Catalogue. - Collected only in fruit in canons south of Scott's Bluff. The specimens differ considerably from those in the Herbarium of the University of Nebraska, being of twice the size or more, the cells of the pod not being spherical, but obovate, diverging at the top, &c. July 22.

#### CAPPARIDACEAE.

25. *Polanisia trachysperma* T. & G. - Common in sand-draws throughout the Region. - D. Co., June 27 & Aug. 24; B. Co., July 8; K. Co. -, Aug. 12.

26. *Cleome integrifolia* T. & G. - Common in Western Nebraska. - Upper Pumpkin Seed Valley, B. Co., July 17; Kimball, Aug. 13.

#/ D. Co. = Deuel Co.; - Ch. Co. = Cheyenne Co.; B. Co. = Banner Co.; - K. Co. = Kimball Co.; S. B. Co. = Scott's Bluff Co.



27. Cleome anastifolia, Torr. -- South Platte Bottom, near Julesburg, Col. August 24.

VIOLACEAE.

28. Viola Nuttallii, Pursh. -- In fruit only, on the hillsides, among stones. -- Rush Creek, D. Co., July 2; Scott's Bluff, July 20.

Polygalaceae.

29. Polygala alba, Nutt. -- Sand-hills of Phelps Co., June 18; Hills of McColligan Canon, D. Co., August 22; Scott's Bluff, July 22.

CARYOPHYLLACEAE.

30. Arenaria Franklinii, Dougl. ~~var. minor~~, Hook. & Arn. -- Hills south of Pumpkin Seed Valley, July 6 & 14.

31. Arenaria Franklinii, Dougl. ~~var.~~ . . . . . Both A. Franklinii and A. pungens are described as having the <sup>petals</sup> about equalling the calyx. In the specimens collected on Court House Rock, Ch. Co., July 4, and on the hills <sup>south</sup> of Scott's Bluff, July 23, the petals are nearly 1/2 longer.

*Franklinii Dougl., var. minor Hook & Arn.*

32. Arenaria sp. . . . . . Very low and cushioned, 1--2 inches high; cyme 1 in., few-flowered, generally 1-flowered; leaves about 3 lines long. It is perhaps a dwarfed variety of A. Franklinii. -- Hills of the Lawrence Fork, B. Co., July 8.

PORTULACACEAE.

Portulacca oleracea, Eng. -- Seen on the bank of U. P. R. R. between Potter and Sidney, Ch. Co.

33. Talinum teretifolium, Pursh. -- Sand-hills of Kearney Co. June 13.

MALVACEAE.

34. Callirrhoe involucrata, Gray. -- On sandy soil in Kearney Co., July June 13.

35. Callirrhoe alcaeoides, Gray. -- Together with the preceding. --

36. Malvastrum coccineum, Gray. -- Hills and prairies: Deuel Co., June 25; Scott's Bluff, July 21; Potter, August 14.

LINACEAE.

37. Linum rigidum, Pursh. -- Hills: Phelps Co., June 18; Kearney Co., June 15; Lawrence Fork, B. Co., July 9.

CELASTRACEAE.

38. Celastrus scandens, L. -- Islands in Platte River, Kearney Co., June 15.

VTACEAE.

Vitis riparia, Michx. -- Throughout Nebraska; in the west in canons.

39. Ampelopsis quinquefolia, Michx. -- As preceding. -- Lawrence Fork July 9.

SAPINDACEAE.

40. Negundo aceroides, Moench. -- Throughout Nebraska; in the western part, only in canons, near springs. Hackberry Springs, B. Co., July 11.



ANACARDIACEAE.

41. Rhus Toxicodendron, L.--On the sides of the hills and in canons --Kearney Co., June 15.

42. Rhus Canadensis, Marsh. var. trilobata, Gray.--Hills and canons, throughout the West. - McColligan Canon, D. Co., June 20.

LEGUMINOSAE.

43. Thermopsis rhombifolia; Nutt.-- Sand-draws; In fruit, Rush Creek, D. Co., July 2.

44. Sophora sericea, Nutt.--Prairies and broken land. - Deuel Co., June 25; south of Dix, Ch. Co., August 14.

45. Lupinus argenteus, Pursh. var. decumbens, Wats.--Hill-sides canons. - Lawrence Fork, July 10; Hackberry Springs; July 11; Cedar Vally, July 13.

46. Lupinus pusillus, Pursh. - Hills: Frontier Co., near Curtis, June 23; Deuel Co., June 25.

47. Hosackia Purshiana, Benth. - Door-yard, Phelps Co., June 18; sand-draw, McColligan Canon, D. Co., August 22; Platte River Bottom, Kearney Co., August 29.

48. Psoralea tenuiflora, Pursh. - -I prepared, last year, some notes on the Psoraleas of Nebraska, which I submitted to Dr. Britton of Columbia College, New York, together with specimens. From the material in the Herbarium of the University of Nebraska and in my own collections, I believed that we had two distinct species (or, at least, two well marked varieties) under the name Ps. tenuiflora, Pursh. (Ps. floribunda, Nutt.), one from eastern Nebraska, which I called Ps. floribunda, one from western Nebraska, for which I reserved the name Ps. tenuiflora, Pursh. I made the following distinction:

Ps. floribunda; racemes dense, 3-5 in.; stem canescent, under the lens hirsute; leaflets generally 5, oblong, 1 to 1 1/2 inch; glands on the lower side of the leaves and on the calyx hidden by the hairs; teeth of the calyx lance-ovate, the lower longer; flowers nearly 3 lines; standard orbicular, notched.

Ps. floribunda; racemes few-flowered, only 1-3 in.; bracts often with a single flower; stem minutely canescent; leaflets 3, oblong-lanceolate, 1/2-3/4 in., planely punctate; calyx punctate, colored; teeth equal; flowers 2 lines; standard <sup>ob</sup>ovate.

Dr. Britton remarks that he had concluded that Ps. floribunda could not go un-noticed into Ps. tenuiflora; but recommended to put another season's field work on it, which I have done. The conclusion to which I have come, is that they belong to one species. All specimens seen in the West fit my description of Ps. tenuiflora, except that the length of the leaflets and of the racemes are a little longer on more low and fertile soil. Specimens collected on the prairies of Phelps Co. (48b) are intermediate between the two, having some of the leaves 5-foliate, longer; the racemes longer; and more hairy leaves and calyx; but the general appearance of them differs more from our eastern variety than from our western. Our eastern, more robust, more silky plant, of which I have no specimens preserved (There are several good specimens in the Herbarium of the Herbarium of University.), I still believe has a good right to be separated as a well marked variety. As the western form seems to have been the type of Mr. Pursh's description of Ps. tenuiflora and



the eastern form the type of *Ps. floribunda*, Nutt., an appropriate name for the latter would be *Psoralea tenuiflora*, Pursh. var. *floribunda* (Nutt.).

On prairies: Deuel Co. June 27; Rush Creek, July 2; Sidney, Aug. 19; - (48b) Phelps Co., June 18.

49. *Psoralea argophylla*, Pursh. -- Pairies: Pumpkin Seed Valley, July 18; Kiwa Valley, S.B.Co., July 28.

50. *Psoralea argophylla*, Pursh. var. *tenuiflora!* a *thick* species. Wet meadow, Pleasant Valley, S.B.Co., July 29. It agrees with the description of *Ps. argophylla*, Pursh. var. *decumbens*, Gray. in Pac.R.Rep. XII. 41., except that the stipules are very small, much shorter than the petioles. The leaves are glabrous above and slightly hairy beneath.

51. *Psoralea campestris*, Nutt. - Sand-hills, Kearney Co., June 15; - In sand, Lawrence Fork, B.Co., July 9.

52. *Psoralea hypogaea*, Nutt. - Hills, Deuel Co. Only 3 specimens found on June 26.

*Psoralea esculenta*, Pursh. is found throughout Nebraska.

53. *Psoralea lanceolata*, Pursh. - Sand-hills, Kearney Co., July June 15; Sand-draws, Lawrence Fork, B.Co., July 9.

54. *Dalea alopecuroides*, Willd. - Platte Bottom, Kearney Co., Aug. 29.

55. *Dalea laxiflora*, Pursh. - McColligan Canon, D.Co., August 22.

56. <sup>*Dalea*</sup> *aurea*, T. & G. - Hills, Scott's Bluff, August 6; McColligan Canon, August 22.

57. *Petalostemon candidus*, Michx. - Eastern and central Nebraska; common. - Platte Bottom, Kearney Co., August 29.

58. *Petalostemon candidus*, Michx. a *form*. I collected this plant, last year, in Deuel Co. In my notes I placed it near *P. gracile*. Dr Britton states that it is contained in the Pringle's Collection under the name *Petalostemon candidus*, var. *occidentalis*, Gray, and that he can not find any description of the same. He consider it as *P. gracile* or a variety of it, or a near related species. I am more inclined to refer it to *P. gracile* than to *P. candidus*, although it seems to be a connecting link. It is often prostrate, most commonly decumbent, sometimes ascending, rarely nearly upright (58b). The leaves are from obovate to nearly linear, obtuse, generally less than 1/2 in. long, but in one upright variety (58b), from the Platte Bottom in Scott's Bluff Co., much longer. This *Petalostemon* differs from *P. candidus*, Michx. in the following points: The stem is decumbent, seldom nearly upright; the bracts are ovate with a slender point, about equalling the calyx and deciduous (in *P. candidus* ~~they are~~ longer than the calyx, and, as far as I know, persistent), leaflets obtuse (in *P. candidus* generally acute). From *P. gracile*, it differs in a stronger growth, by being more leafy, by its broader leaves, and by the length of its spikes, which become lax in fruit, and, perhaps, by the stronger nerves on the calyx. Smaller, narrower leaved and short spiked specimens (58c) can hardly be distinguished from *P. gracile* in the Herbarium of the University. The full description of this *Petalostemon* is as follows:

Stem decumbent, rarely nearly upright, glabrous, striate or slightly angled; leaflets, 1-2 pairs, obovate-oblong, some times nearly linear, 2-6 lines (rarely, nearly 1 in.), punctate beneath; spikes



cylindrical, in fruit elongated, lax; bracts deciduous, ovate, with a slender point, equalling the calyx, which is strongly nerved and glandular punctate below the lanceolate teeth; petals <sup>white</sup> broadly oblong, vexillum broadly cordate.

Sandy hills; Deuel Co., June 25; Lawrence Fork, July 3; Scott's Bluff, July 22; (58b) Platte Bottom, S.B.Co., July 27; (58c) Kiwa Valley, July 28.

= *violaceus* Michx. <sup>var</sup>

59. Petalostemon tenuifolius, Gray. - Last year I found, near a sand-draw in Deuel Co., a few specimens of a *Petalostemon* in fruit. The lowness of the plant, and the fulvous color of the spikes, caught my attention. I preserved it as a curious specimen of *P. violaceus*. Hunting for a description of the preceding species, I struck the description of *P. tenuifolius* in Wheeler's Report. Seeing that it fitted my other, small *Petalostemon*, I gave this the name *P. tenuifolius*. There are no specimens in the Herbarium to compare it with, but Dr. Britton, to whom I sent specimens, said that the determination was correct. This year I have collected the same in flowers. The specimens fully agree with the descriptions, as well by Dr. Watson in Wheeler's Report, as by Dr. Gray in Proc. Am. Acad. Dr. Gray describes the flowers as being rose-purple; Dr. Watson, as rose-colored. In fact, they shade from rose-purple to rose, or, in withering, to pink. The stems branch from a perennial base, are generally simple, hirsute, with long-peduncled heads. What separates it from *P. violaceus* (as I understand it), is, besides the general "habitus", the hairs of the calyx, which in *P. violaceus* are silky and more appressed and in *P. tenuifolius* more woolly and spreading, first white, then fulvous; and the shape of the bracts, which in *P. tenuifolius* are broadly ovate, abruptly contracted into an awn, and in *P. violaceus* ob-ovate or spatulate, with a broader tip and the upper part naked. Some of the specimens collected on the hills of S.W. Deuel Co. (59b), seem to be intermediate between the ~~two~~ two, and I can not see any specific difference between them and my specimens from Big Springs (60), which undoubtedly belong to *P. violaceus*. If any of my specimens belong to *P. tenuifolius*, I regard it as a variety of *P. violaceus*.

Sand-draw, D.Co., June 27; Lawrence Fork, B.Co., July 3; Kimball, August 11.

60. Petalostemon violaceum, Michx. - Common in eastern Nebraska. - Big Springs, D.Co., August 24.

61. Petalostemon macrostachyus, Torr. var. . . . . . This species is described as having white flowers and obtuse leaves, 2/3 inch long. My specimens have yellow flowers and acute leaves, some over an inch long. *P. macrostachyus* is not given in Mr. Webber's Catalogue. I have seen no specimens of it. It is not found in the Herbarium of the University, but it is reported as being in the Herbarium of Doan College, Crete, Neb. Those preserved there are said to have yellow flowers. Maybe, our Nebraska plant is distinct. - On the sand-hills, north of Platte River, S.B.Co., August 4.

62. Petalostemon villosus, Nutt. - Sand-draw, D.Co., August 24; Sand-hills, Kearney Co., August 29.

63. Amorpha canescens, Nutt. - Sand-draw, Deuel Co., August 24.

64. Amorpha fruticosa, L. - Near water; Platte River, Big Springs, D.Co., August 25.

Glycyrrhiza lepidota, Nutt. - To common throughout Nebraska.



65. Millefolium alba, Lam. - Platte Bottom, near Kearney City, August 29.

66. Astragalus caryocarpus, Ker. - Prairies, throughout Nebraska. - Deuel Co., June 25.

67. Astragalus mollissimus, Torr. - Common westward on prairies. - Road-side, Kearney Co., June 15.

68. Astragalus Canadensis, L. - Throughout Nebraska. - Lawrence Fork, B. Co., July 9.

69. Astragalus adsurgens, Pall. - Sandy soil in the West. - McColligan Canon, B. Co., June 26; Lawrence Fork, B. Co., July 8; Scott's Bluff, July 20.

70. Astragalus racemosus, Pursh - Hills: Near Curtis, Frontier Co., June 22.

71. Astragalus gracilis, Nutt. - Hills and prairies in western Nebraska. - Curtis, Frontier Co., June 22; Lawrence Fork, B. Co., July 9.

72. Astragalus microlobus, Gray. - Cultivated soil; not as common as the preceding. - Deuel Co., June 25; Cheyenne Co., August 13.

73. Astragalus Missouriensis, Nutt. - There is in the Herbarium of the University only one specimen under this name, but that belongs undoubtedly not to *A. Missouriensis*, but to *A. Shortianus, Nutt.* - Hills: Curtis, Frontier Co., June 22; North of Kimball, K. Co., Aug. 10.

74. <sup>luteiflorus</sup> Astragalus pubentissimus, Torr. & Gray (?) - I am in doubt if the determination of this species is correct or not. There are no specimens in the Herbarium of the University to compare it with, the description of *A. pubentissimus* is rather brief, and, besides, *Astragalus* is a very polymorphous genus; wherefore I would not be much surprised, if these specimens should belong to another species. I add here a short description:

Plant apparently annual, low, 2-3 in., branched from the root, silky canescent; leaflets, 2 pairs, oval-obovate; raceme 2-4-flowered, often very short and the flowers seemingly sessile in the axils of the leaves; flowers ochroleucous, tinged with purple; pod one-celled membranous, ovate oblong, curved upward.

Canon in Gosper Co.; Hills near Curtis, Frontier Co., June 22; Lawrence Fork, B. Co., July 9; Hills south of Kimball, August 12.

75. Astragalus pictus, Gray, var. filifolius, Gray. - In fruit. - Hills north of Freeport, B. Co., July 14; Wild Cat Mountains, B. Co., July 16.

76. Astragalus pectinatus, Dougl. - In fruit; prairies near Gering, S. B. Co., July 21; and in Pleasant Valley, S. B. Co., July 29.

77. Astragalus multiflorus, Gray. - Near a spring in Pleasant Valley on July 29.

78. Astragalus caespitosus, Gray. - In all flowering specimens I collected, the racemes were few-flowered and about of the length of the leaves. - Rocks, Deuel Co.; McColligan Canon, June 26; Wild Cat Mountains, B. Co., July 16.

79. Astragalus Kentrophyta, Gray. - Court House Rock, Ch. Co., July



4; Hills of Lawrence Fork, B. Co., July 10; Wild Cat Mountains, B. Co., July 16; Scott's Bluff, July 22.

80. Astragalus triphyllus, Pursh. - Hills throughout western Nebraska. - Scott's Bluff, July 22; Kiwa Valley, S. B. Co., July 27; Upper Lawrence Fork, K. Co., August 10.

81. Astragalus sericoleucus, Gray. - Gravelly hills. - In fruit only: Deuel Co., June 25.

82. Oxytropis <sup>*multiceps Nutt*</sup> ~~(?)~~ . . . . . As <sup>no</sup> flowers were found, I can not decide whether it is an Astragalus or an Oxytropis. The plant is very caespitose from a much branched, perennial caudex; leaves about 2 in., 2-3-paired, silky villosa; leaf-lets oblong lanceolate, acute; Pods (fallen among the leaves) 3-4", oval, membranous, one-celled, enclosed in the silky calyx; stipules oval, adnate to the petiole. - In fruit, on the hills of Upper Lawrence Fork, K. Co., August 10.

82. Oxytropis Lambertii, Pursh. - A very variable species. On the prairies, the spike is generally higher (7-10 in.) and laxer (82a). and the plant simpler. On the hills, the stem is generally more tufted, the spike lower (4-6 in.) and more dense (82b). On the barren hills near Rush Creek, D. Co., I found some specimens of a form, undoubtedly belonging here. the plant (82c) is low, leaves shorter, with narrow leaflets, hirsute rather than silky; pods 1/2 in. long, purplish, tipped with a 1/2 inch long, straight, only at the end curved tip. - (82a) Kearney Co., June 15; (82b) Hills south of Pumpkin Seed Creek, July 6; (82c) Hills near Rush Creek, D. Co. July 2.

83. Oxytropis Lambertii, Pursh. var. sericea, Gray. - In fruit, on the hills near Rush Creek, D. Co., July 2, and in bloom at Scott's Bluff, July 24. The Scott's Bluff specimens (83b) are remarkable for the size of the flowers and of the leaflets (some 1 1/2 in. long), and for the peculiar bluish hue.

84. Desmodium Canadense, D. C. - In fruit on the Platte Bottom, near Kearney City, August 29.

85. Vicia Americana, Muhl. var. linearis, Wats. - Common throughout Nebraska; - Scott's Bluff, July 24.

86. Lathyrus ornatus, Nutt. - Prairies, throughout Nebraska. - Kearney Co., June 13; Gosper Co., June 20; Scott's Bluff, July 24.

87. Strophostyles pauciflorus, (Benth.) Wats. - In Gray's Manual, the leaflets and the pods are said to be 1 inch long. In the specimens gathered on the sands of Platte River, near Horse Creek, S. B. Co., both are about 1 1/2 in. long. In Coulter's Manual, it is not given at all.

88. Desmanthus brachylobus, Benth. - Platte Bottom, near Kearney City, August 29.

89. Schrankia uncinata, Willd. - Hill-sides and canons in Gosper Co. near Bertrand, June 20.

#### ROSACEAE.

90. Prunus demissa, Walp. - Hills and canons: Gosper Co., June 20; Curtis, Frontier Co., June 22; Lawrence Fork, B. Co., July 8.



91. Prunus pumila, L. - Sand-draws of Western Nebraska. - It is not given in Coulter's Manual. - Lawrence Fork, B. Co., July 8.

92. Cercocarpus parvifolius, Nutt. - Collected for the first time in Nebraska, by me in 1890. - On the hills between Pumpkin Seed Valley and Lawrence Fork, B. Co., July 9, and on the Wild Cat Mountains, July 16. It was also seen in Cedar Canon and near Scott's Bluff.

93. Geum album, Gmel. - Not given in Coulter's Manual. - Among bushes in Lawrence Fork, B. Co., July 9.

94. Geum strictum, Ait. - Among bushes in Lawrence Fork, B. Co., July 9; North of Scott's Bluff, July 21.

95. Potentilla supina, L. - On Platte Bottom, north of Scott's Bluff, July 21; and near Horse Creek, S. B. Co., August 1.

96. Potentilla Pensylvanica, L. - Prairies: Deuel Co., June 25.

97. Potentilla Anserina, L. - Platte Bottom: Scott's Bluff, July 21 and Horse Creek, August 1.

98. Rosa blanda, Ait. - I am not satisfied with the determination of the roses. The descriptions seem to be in a confusion. Lobed sepals, and not lobed sepals; narrow stipules, and dilated stipules are made essential specific characters. In fact, the contrary characters are often found in the same individual. *R. blanda* and *R. Arkansana* seem to be only varieties of the same species; so also *R. Fendleri* and *R. Woodsii*. *R. blanda* is found in Nebraska only in the West. - Canon, south of Pumpkin Seed Valley, B. Co., July 6.

99. Rosa Arkansana, Porter. - Prairies: Curtis, Frontier Co., June 22. - Some stipules on the specimens are rather broad.

100. Rosa Nutkana, Presl. - Not reported for Nebraska before. - Low ground: Curtis, Frontier Co., June 22; McColligan Canon, D. Co., June 26. - In my specimens, some stipules are narrow and the flowers are smaller than described in Coulter's Manual.

101. Rosa Fendleri, Crepin. - Curtis, Frontier Co., June 22; Sand-draw north of Potter, Ch. Co., August 17.

✓ 102. Rosa Woodsii, Lindl. - Although I do not regard this a separate species, I do label it *R. Woodsii*, as in most cases some of the sepals have 1-few linear lobes, a quality that is, by far, not constant. - Canons of the West: Lawrence Fork, B. Co., July 8; Wild Cat Mountains, July 16; Scott's Bluff, July 29.

✓ 103. Amelanchier alnifolia, Nutt. - Hill-sides: Lawrence Fork, B. Co. and in a canon west of Big Horn Mt., B. Co., August 8 (only leaves).

#### SAXIFRAGACEAE.

104. Ribes cereum, Dougl. - Hills: Lawrence Fork, B. Co., July 8; Hackberry Springs, July 11; Wild Cat Mt., B. Co., July 16.

105. Ribes floridum, L. - Spring in Kiwa Valley, S. B. Co., July 28.

106. Ribes aureum, Pursh. - The fruit is very variable:

106a. - Black, spherical, - the most common form. Lawrence Fork,



July 10.

106b.-Yellow, spherical.- Canon near Scott's Bluff, July 21.

106c.-Black, ellipsoid, large.- Platte Bottom, S.B.Co., July 21.

ONAGRACEAE.

107. Epilobium adenocaulon, Haussknecht.- Very variable, -Lawrence Fork, B.Co., July 8; Carter Canon, July 25; Spring, Kiwa Valley, July 28; Lodge Pole Creek, near Kimball, August 12; Sidney, August 19;  
107b.- A simple form with narrower leaves from Horse Creek, Aug. 1

108. Oenothera biennis, L. var. . . . Flowers unusually small.--Seed Scott's Bluff, July 24; Kiwa Valley, S.B.Co., July 28.

109. Oenothera sinuata, L. <sup>This is determined rightly. H.</sup> - This is not given in Coulter's Manual. A few small specimens were found in a sand-draw in Deuel Co., June 27.

110. Oenothera pinnatifida, Nutt.- Very variable, from simple to much branched below; leaves simple or pinnatifid.- Curtis,, Frontier Co., June 22; Sandy prairies in Deuel Co., June 27; Rush Creek, July 2; Kimball, August 11.

111. Oenothera albicaulis, Nutt.- Prairies; Deuel Co., June 25;-- Pumpkin Seed Valley, B.Co., July 16; Cedar Canon, S.B.Co., July 25; Kimball, August 12.

112. Oenothera albicaulis, Nutt. var. . . . Low, diffusely branched, silky puberulent; leaves oblong lanceolate, toothed; calyx-teeth sometimes not free. It seems to be very near to var. sinuata, Wats. It grows, wherever I have seen it, in the sand-draws, when the type with the linear, glabrate leaves always is found on the prairies.- Deuel Co., June 25; Upper Lawrence Fork, K.Co., Aug. 10.

113. Oenothera coronopifolia, T. & G. - Sandy soil: Deuel Co., June 25; Lawrence Fork, B.Co., July 10.

114. Oenothera caespitosa, Nutt. var. . . . The capsule is not oblong, but rather narrowly ovate, the hairiness shorter than that of ~~Oe~~ OE. marginata (= OE. caespitosa, Nutt.) in the Herbarium of the University.- Canons of Scott's Bluff, July 33.

115. Oenothera canescens, Torr.- Dr. Watson in his Revision describes OE. canescens as having linear or narrow lanceolate leaves. My specimens have from lanceolate to ovate leaves.- Hills: Deuel Co. June 27.

✓ 116. Oenothera serrulata, Nutt.- Prairies: Deuel Co., June 25; Lawrence Fork, B.Co., July 10.

✓ 117. Oenothera Hartwegi, Benth. var. lavandulaefolia, Wats.- Hills: Lisbon, Perkins Co., June 23; Deuel Co., June 27; Rush Creek, July 2; Pleasant Valley, S.B.Co., July 28.

✓ 118. Gaura coccinea, Nutt. - Prairies: Kearney Co., June 15; Pumpkin Seed Valley, B.Co., July 14.

✓ 119. Gaura coccinea, Nutt. var. . . . Glabrous throughout; stem light brown and shreddy; flowers light pink.- Prairies: Deuel Co. June 27.

120. Gaura parviflora, Dougl.- Platte Bottom in Cheyenne Co. July 3.



LOASACEAE.

121. Mentzelia <sup>albicaulis Dougl.</sup> sp. I do not know, whether to refer it to M. albicaulis or to M. dispersa, Wats. The leaves are lanceolate or even ovate, entire or rarely sinuately toothed; the seeds are obtusely angled, and finely and <sup>obtusely</sup> muricate. - North side of Scotts Bluff, about 5,800 feet above the sea, July 23.

122. Mentzelia ornata, T. & G. - Canons, Scott's Bluff, July 24.

123. Mentzelia nuda, T. & G. - This plant has been collected, for several years, and from different localities in Nebraska. It has been named M. ornata and M. laevicaulis; on one hand, because the calyx is bracteolate, on the other hand, because it is often found open in the after-noon. All Nebraska specimens I have seen, as well in collections as in the field, have the calyx bracteolate; and I would have regarded them as belonging to a distinct species, had not Mr. Porter in the Flora of Colorado made the statement, that M. nuda has bracteolate calyx. The only specimens that come near to the description of M. nuda in this respect, are those stunted ones, collected by me on the hills of Upper Lawrence Fork, K. Co., August 10 (123b); but even in these are the bracts ~~present~~ present, although only one or two, small and linear. In these are the pods also unusually short. -- Canons and sand-draws: Lawrence Fork, B. Co., July 10; Wild Cat Mountains, B. Co., July 16; Kiwa Valley, S. B. Co., July 28; McColligan Canon, D. Co., August 22;

CUCURBITACEAE.

220. #) Cucurbita foetidissima, R. B. K. - Lawrence Fork, B. Co., July 9.

CACTACEAE.

Mammillari vivipara, Haw. - It was collected on the sand-hills of Kearney Co., but only one specimen was preserved, and is deposited in the Herbarium of the University.

124. Opuntia Missouriensis, D. C. - Platte Bottom, Phelps Co., June 18.

125. Opuntia rutila, Nutt. - New to Nebraska. - It was collected on the prairies of Deuel Co., June 27. A yellow-flowered variety (125b) was growing together with the purple one.

126. Opuntia fragilis, Haw. - Prairies: Deuel Co., June 27.

UMBELLIFERAE.

127. Musenium tenuifolium, Nutt. - There is no doubt in my mind that this is M. tenuifolium, Nutt., although the flowers are yellow. In withering, they become light straw-color, which, undoubtedly, made Mr. Nuttall believe that they had been white. The fruit is of the Musenium type. It must be referred to this genus, even if it is not M. tenuifolium, Nutt. It is common on the hills of Banner and Scott's Bluff Counties, and on Court House Rock, Ch. Co. It gave a good illustration of what influence the altitude has on the time of flowering. On July 4, we collected on Court House Rock, specimens in well developed fruit, but only one specimen was found in flower. Nearly a month later, on July 28, we found it in full bloom on the hills of Pleasant Valley, between 40 and 50 miles further west, and only 300 or 400 feet higher above the sea. -

128. Berula angustifolia, Koch. - Springs: Lawrence Fork, B. Co., July.

#) This number was left out in the manuscript, and inserted afterward



10; Kiwa Valley, S.B. Co., July 28.

*Pseudocymopterus Kingii* Watson

129. *Pseudocymopterus arisatus*, Coulter & Rose. Collected for the first time in Nebraska. The rays are sometimes more than twelve, and the fruit over 3 lines long. - Scott's Bluff, in the Pass, July 22.

130 *Cymopterus montanus*, T. & G. - Door-yard, Deuel Co., June 27.

131. *Cicuta maculata*, L. - Platte Bottom, Kearney Co., June 15; -- Scott's Bluff, July 20.

#### CORNACEAE.

132. *Cornus stolonifera*, Michx. Low land: Platte Bottom, Kearney Co., June 15; Canon, Kiwa Valley, S.B. Co., July 28.

#### CAPRIFOLIACEAE.

133. *Symphoricarpos occidentalis*, Hook. - The style is often in this species slightly bearded, a fact that Rev. Bates of Valentine has called my attention to. - Lawrence Fork, B. Co., July 8, and near Sidney, August 19.

#### RUBIACEAE.

134. *Galium boreale*?, L. - Canon, north of Pumpkin Seed Valley, B. Co., July 11; Wild Cat Mountains, B. Co., July 16; Spring, Pleasant Valley, S.B. Co., July 29.

#### COMPOSITAE.

135. *Vernonia fasciculata*, Michx. - Platte Bottom, Big Spring, D. Co., August 24.

136. *Kuhnia eupatorioides*, L. - var. *corymbulosa*, T. & G. - Carter Canon, S.B. Co., July 25.

~~137. *Brickellia grandiflora*, Nutt. - Collected for the first time in Nebraska, by me in 1890. It was seen in several new localities this summer, - Canon south of Lawrence Fork, B. Co., July 10; Scott's Bluff, July 22.~~

138. *Liatris punctata*, Hook. - Throughout Nebraska. - Scott's Bluff, August 5; McColligan Canon, D. Co., August 22.

139. *Liatris spicata*, Willd. - My specimens are like *L. pycnostachya* Michx. therein that the bract are colored, but they are obtuse and appressed as in *L. spicata*. the flowers are about 10 in each head. - Platte Bottom, West of Scott's Bluff, August 5. It is not reported for Nebraska before, and it is not given in Coulter's Manual.

140. *Gutierrezia Euthamiae*, T. & G. - very variable; nearly every locality has its own form. - Canons, near Scott's Bluff, July 27; - Prairie, near Horse Creek, August 1.

141. *Grindelia squarrosa*, Dunal. - The specimens seen in Western Nebraska had un-usually thin leaves. - Carter Canon, S.B. Co., July 25; Horse Creek, August 1.

~~142. *Aplopappus armerioides*, Gray. - I am in doubt, if the determination of this is correct, owing to the lack of good material,~~



and to the fact that there are no specimens of *A. armerioides*, or of any related species, in the Herbarium of the University. *A. armerioides* is not recorded for Nebraska. - Hills, south of Fremont, B. Co., July 1.

143. *Applepappus Nuttallii*, T. & G. - Not in Webber's Catalogue. I collected only one specimen in 1890; but this year I found that it is very common in Banner, Scott's Bluff, and Kimball Counties. - Hills, south of Fremont, B. Co., July 1; Wild Cat Mountains, July 16; Upper Lawrence Fork, K. Co., August 11.

144. *Applepappus spinulosus*, V. C. - Prairies, common: Kearney Co., June 15; Wild Cat Mountains, B. Co., July 13; Upper Lawrence Fork, K. Co., August 11.

145. *Applepappus rubiginosus*, T. & G. - Platte Valley, Julesburg, Colorado, August 2.

146. *Crysopsis villosa*, Nutt. - Common. - Pumpkin Seed Valley, July 14; Kiwa Valley, S. B. Co., July 28.

147. *Crysopsis villosa*, Nutt. var. *hispida*, Gray. - Sand: Lawrence Fork, S. Co., July 10; Some of the specimens from the hills/south of Pumpkin Seed Valley, July 11, seem to be between this and var. *ericoideus*.

149. *Crysopsis villosa*, Nutt. var. *canescens*, Gray. - McColligan Canon, D. Co., August 22; Lawrence Fork, B. Co., July 8; Hills, north of Platte River, S. B. Co., August 5.

149. *Crysopsis villosa*, Nutt. var. *sessiliflora*, Gray. - Collected for the first time in Nebraska. - Sand-draw, D. Co., August 24.

150. *Bigelovia Howardi*, Gray. - Not reported for Nebraska. - Hills, north of Fremont, B. Co., July 14 (not in bloom); south of Scott's Bluff, July 24.

151. *Bigelovia graveolens* var. *glabrata*, Gray. - 5-7 feet high bush. - Canon, east of Scott's Bluff, July 21 and August 6.

152. *Solidago Missouriensis*, Nutt. - It is very variable; several forms were collected: a. - Kiwa Valley, S. B. Co., July 28; McColligan Canon, D. Co., August 22; b. - Cedar Valley, S. B. Co., July 23; c. - Kimball, August 12.

153. *Solidago Missouriensis*, Nutt. var. . . . . I have given this a separate number, because it differs considerably from the type. The panicle is unusually narrow; the bracts few, long, thin, and papery margined. - Near Scott's Bluff, July 25.

154. *Solidago Missouriensis*, Nutt. var. . . . . Leaves thin, lanceolate to nearly linear; stem very slender; panicle small, narrow, achenes somewhat silky. - Canon, Kiwa Valley, S. B. Co., July 27.

155. *Solidago Canadensis*, L. - Common; Platte River, west of Scott's Bluff, August 3.

156. *Solidago serotina*, Ait. (?) - This is perhaps only a smooth variety of *M. Canadensis*. - Platte River, north of Scott's Bluff, July 25.

157. *Solidago nemoralis*, Ait. var. *incana*, Gray. - Common in the West. Hills: near Kimball, August 12; in Kiwa Valley, S. B. Co., July 28.



*radula*  
 158. Solidago nemoralis, Ait. var. . . . . This seems to be very near to *S. nemoralis*; but the leaves are elliptic oblong to obovate, entire or slightly toothed, very scabrous; panicle narrow, leafy, the branches short and nearly upright. It seems to connect *S. nemoralis* and the "*GLORIFLORAE*". - Hills, near Lodge Pole, Ch. Co., August 19.

159. Solidago lanceolata, L. - Throughout Nebraska. - Platte River, Big Springs, D. Co., August 24.

*Solidago rigida* was seen at several places, but not in bloom.

160. Townsendia grandiflora, Nutt. - Hills of Western Nebraska: North of Pumpkin Seed Valley, B. Co., July 6.

161. Aster communatus, T. & G. - The heads of some of the specimens are rather small, but contain over 20 rays. - Near water: Carter Canon, S. B. Co., July 23; Lodge Pole Creek, near Kimball, August 12; Sand-draw in Deuel Co., August 24.

162. Aster adscendens, Lindl. (?) - I am in doubt if the determination of this and of the following is correct. - Lodge Pole Creek, near Kimball, August 12.

163. Aster Fremontii, Gray. - Horse Creek, S. B. Co., August 1.

164. Aster Tradescantii, L. - Platte Bottom, Big Spring, D. Co., Aug. 24.

165. Aster foliaceus, Lindl. - Platte, north of Scott's Bluff, July 23; Horse Creek, S. B. Co., August 1; Lodge Pole Creek, near Kimball, August 12.

166. Aster ericaefolius, Rothrock. - Prairies: Venango, Perkins Co., June 23.

167. Aster tanacetifolius, T. B. K. - Common in the West. Scott's Bluff, July 23.

168. Erigeron pumilus, Nutt. - My specimens are unusually large. - Hills: Deuel Co., June 27; Lawrence Fork, B. Co., July 10.

*We have no Herb. spec. of this sp.*  
 169. Erigeron canus, Gray. - Not uncommon, McColligan Canon, D. Co., June 25; Scott's Bluff, July 22.

170. Erigeron divergens, T. & G. - Scott's Bluff, July 22.

171. Erigeron strigosus, Muhl. - Sand-hills, Kearney Co., June 13.

172. Erigeron Canadensis, L. - Not very common in the West. - Canon, Kiwa Valley, S. B. Co., July 28.

173. Antennaria plantaginifolia, Hook. - An unusually slender and small leaved form from Pumpkin Seed Valley, B. Co., July 13.

174. Iva ciliata, Willd. - Platte, Kearney City, August 29.

175. Iva axillaris, Pursh. - Not in Mr. Webber's Catalogue. - Near Platte River, S. B. Co., July 23.

176. Iva Xanthifolia, Nutt. - Scott's Bluff, July 24.

177. Ambrosia, L. - trifida, L. var. integrifolia, T. & G. - Rare in



Eastern Nebraska, but more common than the type in the West.- Sand-  
draw, near Potter, Ch. Co., August 15. 15

178. Ambrosia psilostachya, D.C. - Rare in Eastern Nebraska, but  
more common in the western part of the state. Sand-draw, near Potter,  
Ch. Co., August 15.

179. Franseria Hookeriana, Nutt. - It is not given in Mr. Webber's  
Catalogue of the Flora of Nebraska. Seemingly, it was collected  
for the first time in Nebraska this year. Maybe, it has been over-  
looked on account of its likeness to Ambrosia psilostachya and A.  
artemisiæefolia. - Sand-draw, near Potter, Ch. Co., August 15.

180. Franseria discolor, Nutt. - There is no record at the Universi-  
ty, that it has been collected in Nebraska, except that it is given  
for the state in the Synoptical Flora, and, consequently also in  
Coulter's Manual: Valley, 6 miles south of Dix, Kimball Co., Aug. 14.

181. Franseria tomentosa, Gray. - It has not been reported for Nebr-  
ska before, although it already begins to become a trouble-some  
weed in Kearney Co., Especially on low, rich soil. - Near Axtell,  
August 29.

182. Lepachys columnaris, T. & G. - Throughout Nebraska. - Cedar Val-  
ley, S. B. Co., July 18.

183. Lepachys columnaris, T. & G. var. pulcherrima, T. & G. - Varies  
with brown rays: Cedar Valley, S. B. Co., July 18; and with purplish  
rays: Scott's Bluff, July 22.

184. Helianthus annuus, L. var. . . . . Small specimens, in appear-  
ance very like H. petiolaris. - Near Kimball, August 12.

185. Helianthus petiolaris, Nutt. - Prairies, Kimball, August 12.

186. Helianthus rigidus, Desf. + Throughout Nebraska on the hills. #  
Upper Lawrence Fork, K. Co., August 10.

187. Helianthus Maximiliani, Schader. Platte Bottom, Kearney City,  
August 29.

188. Helianthus Maximiliani, Schader, var. . . . . - This is un-  
doubtedly H. Maximiliani, although the lower part of the stem is smooth.  
The rays are golden yellow, and the paleae are long, lanceolate. It  
may be a broad leaved and hairy variety of H. Nuttallii, which I  
have never seen. - Platte River, near Horse Creek, S. B. Co., August 1.

189. Coreopsis tinctoria, Nutt. + Upper Lawrence Fork, K. Co., August  
10.

190. Bidens cernua, L. - var. . . . . Allow, discoid form, with nearly  
entire leaves, large outer involucre and hardly nodding head. - Sands  
of South Platte River, Julesburg, Colorado, August 28.

191. Bidens Chrysanthemoides, Mich. var. . . . . - This is the B.  
chrysanthemoides of several Nebraska collectors and of L. F. Ward  
from Colorado. In many respects, it does not agree with the descrip-  
tion of B. chrysanthemoides in Gray's and Coulter's Manuals. The  
outer involucre is longer than the inner, sometimes very foliaceous;  
the rays are only about 1/2 longer than the inner bracts, oval, a-  
bout 1/2 in. long, golden yellow; leaves rather sharply serrate, a



little connate; heads little nodding, if at all. *Bidens cernua* is common in Eastern Nebraska, especially the discoid form. When well developed, it always has nodding heads, with large bracts. The only, (in my opinion) true *B. chrysanthemoides* I have seen in Nebraska was collected by me, in 1889, in a creek near Wahoo. It had comparatively short outer bracts, broadly oblong rays, about 1 inch long, thicker, nearly entire, well connate leaves, and more glaucous aspect. I would, maybe, have taken no. 191 for a hybrid of the two, if they had been growing together; but I did not see any other *Bidens* than this and *B. frondosa* in all whole Western Nebraska. - Upper Lawrence Fork, K. Co., August 10; Lodge Pole, Ch. Co., August 19.

192. *Thelesperma filifolium*, Gray. - Collected in Nebraska for the first time, by me in 1890. The root is annual, biennial, seemingly also perennial; but there is no creeping rootstock. The divisions of the leaves are sometimes broader than the rachis. - Prairies: Deuel Co., June 25; Rush Creek, July 2; Sidney, Ch. Co., August 19.

193. *Thelesperma gracile*, Gray. - Common in Western Nebraska; McColligan Canon, D. Co., June 26; Hills in Banner Co., August July 11.

194. *Hymenopappus tenuifolius*, Pursh. ~~var.~~ - I believe that this belongs to *H. tenuifolius*, although the corolla is light yellow, and not white. I would have named it *H. flavescens*, Gray., but for the range and for the achenes, which are long villose. - Sandhills of Phelps Co., June 18.

195. *Hymenopappus* sp. . . . . - I do not know where to refer this, the most common *Hymenopappus* of Western Nebraska. It seems to be between *H. tenuifolius* and *H. filifolius*. The stems are generally several, clustered from a perennial caudex, slender, 12-18 in. high, with few stem-leaves, but not scapiform. The heads are small, hardly 4 lines; the bracts with yellowish tips; the corollas are generally bright yellow. - Hills and canons: between Lawrence Fork and Pumpkin Seed Valley, B. Co., July 6; Wild Cat Mountains, July 16; Maybe, it is *H. luteus* of Nuttall.

196. *Actinella acaulis*, Nutt. - In the Synoptical Flora, and also in Coulter's Manual, this species is said to have the rays 3-5 in. long rays, which is, undoubtedly a misprint, not corrected in the reprint. - Hills of the West, common. - McColligan Canon, D. Co., June 26; Rush Creek, July 2; Scott's Bluff, July 24.

197. *Helenium autumnale*, L. - Platte Bottom, S. B. Co., July 24.

198. *Bahia oppositifolia*, Nutt. - Salt marsh, near the Wyoming line. <sup>S. B. Co.</sup>  
July 31.

199. *Chaenactis Douglasii*, Hook. & Arn. var. *alpina*, Gray. (??) - As there are no flowers, and the fruits found consist of 3 incomplete achenes, I am in doubt if the determination is right. There are no specimens in the Herbarium of the University. The general appearance, the receptacle and the involucre seemed to indicate that the plant belonged to *HELENIOIDEAE*, and the involute bracts made me suppose that it belonged to *Chaenactis*. The plant is new to Nebraska. It was first noticed by Mr. J. Flodman on the hills of Upper Lawrence Fork, K. Co., August 10.

200. *Dysodia chrysanthemoides*, Lag. - Throughout Nebraska, common. - Prairie, near Horse Creek, S. B. Co., August 1.

201. P



201. Pectis angustifolia, Torr. - Collected for the first time in Nebraska, in 1890. - Sand-draw in Deuel Co., June 27 and August 24.

202. Achillea Millefolium, L. - Prairie, Kiwa Valley, July 28.

203. Artemisia Canadensis, Michx. - Hills of Western Nebraska: Kiwa Valley, S.B.Co., July 28; Potter, Ch.Co., August 15; Sand-draw in Deuel Co., August 24.

204. Artemisia dracunculoides, Pursh. - Throughout Nebraska. - McColligan Canon, D.Co., August 22.

205. Artemisia biennis, Willd. - Sand, Potter, Ch.Co., August 15.

206. Artemisia filifolia, Torr. - Sandy soil in Western Nebraska. - McColligan Canon, D.Co., August 22.

207. Artemisia frigida, Willd. - Hills, Lawrence Fork, B.Co., July 10

208. Artemisia Ludoviciana, Nutt. - Throughout Nebraska, common. - Hills: Eagle Nest, S.B.Co., July 28; South of Kimball, August 13. - 208b. is a slender variety with smaller leaves; not in bloom, although collected at the same time as the other form, August 13.

209. Artemisia cana, Pursh. - Not in bloom yet. - Canon in Kiwa Valley, S.B.Co., July 28.

210. Senecio canus, Hook. var. . . . . - Tomentose throughout, 6-12 in. high; heads several; leaves nearly always entire, the radical oval or broadly oblong, petioled, sometimes with the petiole fully 4 in., achenes glabrous or slightly and shortly strigose on the angles; involucre floccose or glabrous. It is undoubtedly nearly related to S. canus and S. verneriaefolius. - Hills, south of Pumpkin Seed Valley, B.Co., July 13; Scott's Bluff, July 24.

211. Senecio aureus, L. var. . . . . - Platte, Kearney Co., Aug. June 15; Cheyenne Co., July 3.

212. Senecio Douglasii, D.C. - Valleys: Lawrence Fork, B.Co., July 10

213. Cnicus Pitcheri, Torr. - Prairies: Kearney Co., June 25; Hills of Banner Co., July 6; Scott's Bluff, July 24.

214. Cnicus, ochrocentrus, Gray. - Prairie; Kimball, August 12.

215. Cnicus undulatus, Gray. - I would have taken the preceding for a variety of this, had it not been blooming about a month later. ++ Hills between Lawrence Fork and Pumpkin Seed Valley, July 26; Curtis, Frontier Co., June 22; Deuel Co., July 25.

216. Cnicus altissimus, Willd. var. filipendulus, Gray. - Platte Valley, near Horse Creek, S.B.Co., August 2.

217. Oreopis runcinata, T. & G. - Platte Bottom, Ch.Co., July 3; Pumpkin Seed Valley, B.Co., July 14.

218. Lactuca Ludoviciana, D.C. - Lawrence Fork, July 10; Mitchell Valley, S.B.Co., August 4.

219. Stephanomeria minor, Nutt. - I would have referred <sup>this</sup> to S. runcinata, Nutt., but the pappus is plumose to the base. - Bad Lands, north of Scott's Bluff, July 22. It is easily taken for a Lygodesmia.



220. Lygodesmia juncea, Don. - Unusually large specimens from a canon north of Freeport, B. Co., July 15.

221. - See page 11.

Lobeliaceae.

222. Lobelia spicata, Lam. - Platte Bottom, S. B. Co., August 2.

CAMPANULACEAE.

223. Campanula rotundifolia, L. - Carter Canon, S. B. Co., July 25.

PRIMULACEAE.

224. Dodecantheon Meadia, L. - Only in fruit. - Carter Canon, S. B. Co., Platte Bottom, Ch. Co., July 3.

OLEACEAE.

225. Fraxinus pubescens, Lam. - Rare in Nebraska, especially in the western part of the state. We saw a few trees in a gorge, on Little Medicine Creek, near Curtis, Frontier Co., June 22, and also a few at Hackberry Springs, B. Co., July 10. One at the latter place measured over 7 feet in circumference.

Fraxinus viridis, Michx. f., is common throughout Nebraska. It was seen at several places, but no specimens were collected.

APOCYNACEAE.

226. Apocynum cannabinum, L. - Hills in Kearney Co., June 13; Scott's Bluff, July 22.

ASCLEPIADACEAE.

227. Asclepias speciosa, Torr. - Sand-draw, D. Co., June 25; Lawrence Fork, B. Co., July 8.

228. Asclepias arenaria, Torr. - In buds: Sand-hills, Kearney Co., June 13; Sand-draw, D. Co., in fruit, August 23.

229. Asclepias verticillata, L. var. pumila, Gray. - Sandy places. - Lawrence Fork, B. Co., July 8.

230. Acerates auriculata, Eng. - It is very likely to be confounded with Asclepias stenophylla, Gray, which grows on the sandhills of Kearney Co. The form of the hood and of the auricles, and the absence of the horn in Acerates auriculata, are the only characters that separate the two. It was collected by me for the first time in Nebraska, in 1890. - McColligan Canon, D. Co., June 26; Scott's Bluff, July 24; Sand-draw, near Kimball, August 12; Canon in Banner Co., ~~August~~ <sup>July</sup> 8.

231. Acerates viridifolia, Ell. - Hills, north of Lawrence Fork, B. Co. July 10.

232. Acerates viridifolia, Ell. var. lanceolata, Gray. - Hills, north of Lawrence Fork, B. Co., July 10.



GENTIANACEAE.

233. Erythraea Douglasii, Gray. - New to Nebraska. - Sands of Platte River, near Horse Creek, August 1; and west of Scott's Bluff, Aug. 3.

234. Eustoma Russellianum, Griseb. - Platte Bottom, near Horse Creek S.B.Co., August 1; Lodge Pole Creek, near Kimball, August 12.

POLEMONIACEAE.

*Bryoides*  
235. Phlox muscoides, Nutt. - No flowers were found, and only a few specimens in fruit. There are no specimens of this or of *P. bryoides* in the Herbarium of the University. I have never seen any of ~~them~~<sup>it</sup>, but the likeness of the capsule of this and of the next, made me believe it to be a *Phlox*. I named it *P. muscoides*, although the leaves are plainly quadrifarious. It was first collected by Mr. J.M. Flodman. - Hills of Upper Lawrence Fork, K.Co., August 10.

236. Phlox Hoodii, Richards. - It was seen in several places in Banner and Scott's Bluff Counties, but out of bloom. The only specimens in flowers <sup>ε</sup>were found on rocky hills in Pleasant Valley, S.B.Co., near the Wyoming line, on July 30. It has also been reported from N.W. Nebraska.

<sup>= 236!</sup>  
237. Phlox caespitosa, Nutt. var. rigida, Gray. (?) - Plants were seen on the Wild Cat Mountains, but then taken for a glabrate form of the preceding, until one specimen in bloom was collected on a hill, south of Scott's Bluff, July 26, and another in Kiwa Valley, July 29. The leaves are without cobwebby hairs, acicose, 2-3" long, at last spreading; corolla blue or white; lobes obovate, entire; tube longer than the calyx, which is a little cobwebby. - It is new to Nebraska.

238. Phlox Douglasii, Hook. var. . . . . - I refer this to *P. Heedii* Douglasii, Hook., which it resembles. the leaves, stem, and calyx are, however, very plainly cobwebby, which would associate it with *P. Hoodii* and *P. canescens*. It, certainly, belongs to neither of them. - Prairies and hills near Scott's Bluff, July 24; Hills of Upper Lawrence Fork, K.Co., August 10.

239. Phlox Douglasii, Hook. var. longifolia, Gray. - Valley near Rush Creek, D.Co., July 2.

240. Gilia linearis, (Nutt.) Gray. - New to Nebraska. - Sand-draw in Deuel Co., June 25.

241. Gilia gracilis, Hook. - Also new to the state. In the same locality as the preceding, June 25.

242. Gilia longiflora, Don. - Sand-hills of Kearney Co., August 29.

243. Gilia pungens, Benth. var. caespitosa, Gray. - It is given in Coulter's Manual for Scott's Bluff, Wyoming. I found it common on Wild Cat Mountains and on the hills of Scott's Bluff Co., especially on Scott's Bluff, Nebraska. It is not given in Webber's Catalogue. - Scott's Bluff, July 25; Hills in Kiwa Valley, S.B.Co. July 29.

244. Gilia spicata, Nutt. - New to Nebraska. There are no specimens of this in the Herbarium of the University of Nebraska. - Hills north of Lawrence Fork, B.Co., July 6 and 10.

245. Gilia iberidifolia, Benth. - Cliffs and canons of Banner and



Scott's Bluff Co. - Wild Cat Mountains, B. Co., July 16; Scott's Bluff July 26.

246. *Gilia* sp. . . . . - Glandular pubescent; root biennial or, distributed may be, perennial; stem branched, about 1 foot high or higher; leaves somewhat irregularly pinnatifid; lobes linear, not wider than the rachis, somewhat fleshy, mucronate; flowers in a branched panicle; corolla violet or blue with a white tube, somewhat funnelform, 2 lines long; stamens exserted; calyx with prominent ribs. It may be a variety of *G. pinnatifida*, which I have never seen. The corolla, however, is smaller than in the description and not strictly salverform. It is new to the state. - Sands of Platte River near Horse Creek, S.B. Co., August 1.

*pinnatifida* Nutt., fls. 2 seeds agreeing. But in the ordinary form fls. are striated at ends of branches, while here they are more evenly along the rachis by the elongated of the pedicels.

247. *Phacelia* sp. . . . . - It was collected for the first time in Nebraska, in 1890, by Mr. T.A. Williams, in the foot-hills of Black Hills. This year, I found a new station at Scott's Bluff, July 22. I would have named it *P. circinata*, Jacq., the description of which agrees very well; but it is not at all like *P. circinata* of C.C. Perry's collection of 1876 from North California, which is strigose, not canescent, has shorter and smaller flowers, nearly glabrous filaments, and the leaves variously lobed. In all plants I have collected, the leaves are entire; but in one specimen of Mr. T.A. Williams', there were a few small pinnae below. The leaves are silky canescent on both sides, strigose only on the pedicels; flowers light blue or whitish; root-leaves spatulate-oblongate entire; filaments bearded.

*circinata* Jacq. HYDROPHILLACEAE. It agrees fully w. Colorado forms of this sp.

#### BORRAGINACEAE.

248. *Heliotropium currasivicum*, L. - Wet meadow, saline soil in Pumpkin Seed Valley, B. Co., July 16.

✓ 249. *Echinosperrum floribundum*, Lehm. It is not given in Webber's Catalogue; but was collected, in 1890, by Mr. T.A. Williams in War Bonnet Canon in N.W. Nebraska. A new locality was found, this summer, July 9, in the plum-thickets in Lawrence Fork, B. Co.

250. *Echinosperrum Redowskii*, Lehm. var. *occidentale*, Watson. - Door-yard, Phelps Co., June 18.

251. *Echinosperrum Redowskii*, Lehm. var. *cupulatum*, Gray. - Prairie, Venango, Perkins Co., June 23.

252. *Krynitzkia crassisepala*, Gray. - Sandy prairies, especially where the sod has been disturbed, as in prairie-dog towns. - Deuel Co., June 25.

253. *Krynitzkia Fendleri*, Gray. - It is not given in Webber's Catalogue, but was afterwards collected in 1890, by Rev. Bates of Valentine, Neb. Wild Cat Mts, B. Co., July 17.

✓ 254. *Krynitzkia Jamesii*, Gray. - Not given in Webber's Catalogue. It was collected by me, in 1890. - Sandy prairies: Deuel Co., June 25; Wild Cat Mts., July 16; Lawrence Fork, B. Co., July 8.

255. *Krynitzkia glomerata*, Gray. - Rocky hills: McColligan Canon, D. Co., June 26; Rush Creek, D. Co., July 2; Lawrence Fork, B. Co., July 9; Scott's Bluff, July 24.



This has narrower leaves, and narrower fruit than specimens in Herb. Calyx lobes, corolla lobes (rounded, entire), and corolla tube are of about equal length. It seems to be a form of this species 21

256. Krynitzkia sericea, Gray. (?) - As no specimens in flower were seen, it might, perhaps, be K. fulvocanescens. Neither of the two is given in Webber's Catalogue. - Cliffs: McColligan Canon, D. Co., June 26; Upper Lawrence Fork, K. Co., August 10.

257. Mertensia lanceolata, D. C. - In fruit, among bushes in Lawrence Fork, B. Co., July 8.

258. Lithospermum hirtum, Lehm. - Sand-hills of Kearney Co., June 15.

259. Lithospermum angustifolium, Michx. var. . . - It was collected only in fruit. It is very low and much branched; but is, undoubtedly, nothing but a stunted form of L. angustifolium. - Prairies, Venango, Perkins Co., June 23.

260. Onosmodium Carolinianum, D. C. - Prairies, Kearney Co., June 13.

#### CONVOLVULACEAE.

261. Ipomaea leptophylla, Torr. - Prairies of Western Nebraska. - Lawrence Fork, B. Co., July 8.

262. Convolvulus sepium, L. - Road-side, east of Potter, Ch. Co. Aug. 17.

263. Evolvulus argenteus, Pursh. - Sand-hills, Kearney Co., June 16; Sand-draw, Deuel Co., June 25.

264. Cuscuta ~~sp.~~ *indecora Choisy - A form quite free from papillae!* . . . . I do not know to which this should be referred. I at first took it for C. Gronovii, Willd., but the capsule is depressed globular, which would associate it with C. arvensis and C. tenuiflora. It differs from the former therein that the flowers are flower-clusters are more or less cymose, not dense, and from the latter in being more slender, and in having a broadly campanulate corolla with spreading lobes. More slender specimens resemble somewhat C. Californica; but the lobes of the corolla are obtuse. - On Chenopodium and Polygonum, and occasionally on Helianthus annuus and Psoralea lanceolata. - Canon in Kiwa Valley, S. B. Co., July 29.

*Cuscuta Gronovii*, Willd. is also found in the Western Nebraska, but I did not collect any specimens, as I did not find it in bloom.

#### SOLANACEAE.

265. Solanum triflorum, Nutt. - This, Krynitzkia crassisepala, and Munroa squarrosa frequent the prairie dog towns. - Lawrence Fork, B. Co., July 8.

266. Solanum nigrum, L. - McColligan Canon, D. Co., August 22.

267. Solanum rostratum, Dunal. - It is becoming more and more common eastward, and in some places even a troublesome weed. - Broken soil, Deuel Co., July 1.

268. Physalis Virginiana, Mill. - Rail road banks, Kearney Co., June 15; and Curtis, Frontier Co., June 22.

269. Physalis mollis, Nutt. var. cinerascens, Gray. - The species of Physalis are very perplexing, especially those of Western Nebraska. In Eastern Nebraska, I have collected 3, viz. P. angulata, Virginiana, and lanceolata. All agree well with the descriptions in the Synoptical Flora. P. lanceolata var. laevigata, Gray., is also given in Webber's Catalogue, but I have not seen any specimens from Eastern Nebraska. In Western Nebraska I have collected 5 different



forms (species or varieties), which have given me more or less trouble. In fact, I do not know to which to refer them. The first I have referred to *P. mollis*, Nutt. var. *cinerascens*, Gray. It is very similar to the specimens in the Herbarium of the University. The leaves are broadly ovate, 2 in. long, angulately toothed or repand, very thin; pubescence stellate or simple (even a little glandular), very short, except on the calyx, the pedicels, the petioles, and the younger parts of the stem, where it is long and soft; petioles as long as the leaves or longer; corolla greenish yellow with darker spots; anthers yellow; fruiting calyx globose ovate. - Not collected in the state before. - Under the cliffs on the south side of Scott Bluff, July 20.

*- nearest to hederifolia Gray, but out of range for it.*

270. *Physalis* sp. . . . . - It is very like the preceding and likely only a variety of the same species as it. The leaves, however are smaller, scarcely over 1 inch long, thickish; petioles generally shorter than the blades; flowers not seen; fruiting calyx globose, about 1 inch. It is more erect than the preceding; the pubescence is shorter, and the long hairs very few. The general appearance is like that of *P. Fendleri* in the Herbarium of the University of Nebraska, but the pubescence of my specimens is not microscopically minute. - Prairie near Ashford, B. Co., August 8.

*- Palmeri? May be = 270.*

271. *Physalis* sp. . . . . This is also, very likely, only a variety of the same species as the two preceding. The general habit is between the two. The leaves are thicker and shorter petioled than in No. 270, and longer than in No. 271. Fruiting calyx ovate about 1 inch; stem low and nearly prostrate. The pubescence is more glandular, and the strong scent is perceived at a distance of several rods. It seems to be a connecting form between the "Mollis" group and *P. Palmeri*. - Sandy banks of a draw, south of Sidney, Ch. Co., August 18.

272. *Physalis longifolia*, Nutt - I collected this and the following last year, and sent some specimens to Dr. Watson, who said that both belong to *P. lanceolata*, and that this is the variety *laevigata*, Gray. For my part, I believe that it has full right to a specific rank, as I have not seen any intermediate forms. If this is *P. lanceolata* var. *laevigata*, Gray., I would add to the characters in the Synoptical Flora: Berry yellow, stalked in the calyx; this ovate, less angled, and not sunken at the base; bottom of the calyx, stipe, and lower part of the berry very glutinous, as if they were painted with molasses. It is these characters that make me believe it to be distinct, hence I named it with Nuttall's name, *P. longifolia*. - Lawrence Fork, B. Co., July 8; Near Lodge Pole Creek, Kimball August 12.

*viscosa var. spatulifolia Gray - Apparently a prostrate form. We have it from Kansas.*

273. *Physalis* sp. . . . . It belongs to the *Lanceolata* group, *Kansas*, and stands very near to *P. lanceolata* and the preceding. However it agrees better with the description of *P. angustifolia* than to that of *P. lanceolata*, except in the pubescence, which is short and stiff or, more commonly, scarcely any, except on the calyx. The plant is low, from 6-10 in., prostrate to nearly upright; leaves obovate, nearly always entire; fruiting calyx globose ovate, scarcely angled, and very little sunken at the base; berry yellowish green; corolla 1/2 in. wide, greenish yellow with a darker spot (In *P. lanceolata* it is 2/3-3/4 in. wide and ochroleucous). - Sand-draw, D. Co. June 25; Lawrence Fork, B. Co., July 8; Rush Creek, D. Co., July 2; Scott's Bluff, July 24; Sidney, Ch. Co., August 17. *Part may have lanceolata!*

274. *Physalis lanceolata*, Michx. - Rail Road Bank, Kearney Co. Jun. 13



*acuminatus Dougl.*

276. Pentstemon ~~acuminatus~~, var. ~~acuminatus~~ is no given for Nebraska, and no specimens of the same are in the Herbarium of the University. - Prairie, Deuel Co., June 17.

278. Pentstemon glaber, Pursh. - Common near Lawrence Fork, K. Co., July 10.

279. Pentstemon transilvanicus. - Prairie, Kearney Co., June 15.

*albicus Nutt.*

280. Pentstemon ~~albicus~~, Nutt. - Corolla {blue or white. - A specimen seen at Minden called it *P. albidus*, the description of which fits very well, except that the corolla is plainly bilabiate. There are no specimens in the Herbarium of the University. - Prairies: Kearney Co., June 15; Gosper Co., June 20; Deuel Co., June 25.

281. Pentstemon gracilis, Nutt. - Not common, Deuel Co., June 25.

282. Mimulus Jamesii, T. & G. - In brooks: Lawrence Fork, K. Co., July 10; Deuel Co., K. Co., August 1.

283. Limnolobos aquatica, L. - Springs in Deuel Co., June 27. Not in Webber's Catalogue.

284. Veronica americana, Schwein. - In water: Lawrence Fork, K. Co., July 10.

285. Veronica peregrina, L. var. . . . The plant is glandular, and the ped. obscurely, deeply notched; but the general appearance is that of *V. peregrina*, not that of *V. arvensis*. Only a few specimens were collected on a hill near Kimball, August 12.

286. Gerardia purpurea, L. - Taken in "Flats", near Kearney City, August 29.

287. Gerardia tenuifolia, Vahl. - Common in Western Nebraska, in low places: Lawrence Fork, K. Co., July 10; Lodge Pole, east of Fort, K. Co., August 18.

288. Guaiulea sessiliflora, Pursh. - It has been collected in the Black Hill region, by T. A. Williams, in 1890. - Hills of Deuel Co., June 25.

289. Orthocentrus luteus, Wats. - Lodge Pole Creek, near Kimball, August 12.

*Orobanchaceae.*

290. Aphyllon fasciculatum, Gray. - Sand-hills, Kearney Co., June 15; Deuel Co., June 27; East Creek, K. Co., July 2.

291. Aphyllon fasciculatum, Gray. var. luteum, Gray. - It was collected for the first time in Nebraska, in 1890, by Rev. Father of Valentine. - Only a few specimens were collected on hills south of Scott's Bluff, July 25.

292. Aphyllon Ludovicianum, Gray. - It is undoubtedly *A. Ludovicianum*, although the calyx is almost 5-parted. The flowers are yellowish with purplish limb, and plainly 5-lipped. It is parasitic at all, on the roots of *Chrysochloa*, in sand-draws: Lawrence Fork, K. Co., June 15; 2906 is a depauperate form from the hills of upper Lawrence Fork, K. Co., August 10.

293. Aphyllon Ludovicianum, Gray. var. . . . - Plant dark brown.



flowers dark purple. - On the roots of *Opuntia Missouriensis*(?) -  
- Prairies, north of Kimball, August 12.

#### LABIATEAE.

292. *Teucrium occidentale*, Gray. - Spring near Horse Creek, S.B.Co.,  
August 1.

293. *Mentha Canadensis*, L. - Lawrence Fork, B.Co., July 11; Horse Creek,  
S.B.Co., August 1.

294. *Lycopus lucidus*, Turcz. var. *Americanus*, Gray. - Pumpkin Seed  
Creek, B.Co., July 18.

295. *Lycopus sinuatus*, Ell. - In Nebraska it is often stoloniferous.  
- Lawrence Fork, B.Co., July 11.

296. *Hedeoma hispida*, Pursh. - Sand-draw, Deuel Co., June 27.

297. *Hedeoma Drummondii*, Benth. - Common in the western part of the  
state. - Court House Rock, Ch.Co., July 4; Canon near Lawrence Fork,  
B.Co., July 8; Scott's Bluff, July 24.

298. *Salvia lanceolata*, Willd. - Hill, Curtis, Frontier Co., June 22

299. *Monarda fistulosa*, L. - Canon in Banner Co., July 6.

300. *Monarda fistulosa*, L. var. *mollis*, Benth. - Lawrence Fork, B.Co.,  
July 8; Prairie in Kiwa Valley, S.B.Co., July 29.

301. *Monarda citriodora*, Cerv. - The specimens I collected does  
not fully agree with the description in the Synoptical Flora. The  
flowers are white, except a spot on the lower lip, which is yellow  
and sprinkled with minute brown purple spots. The bracts are green-  
ish, not whitened nor purplish; but with strong ribs. - Low prairies  
Rush Creek, B.Co., July 2; Lawrence Fork, B.Co., July 8.

302. *Scutellaria galericulata*, L. - Spring near Horse Creek, S.B.Co.,  
August 1. - It is not given in Webber's Catalogue.

203.

203. *Physostegia parviflora*, Nutt. - Collected for the first time  
in the state. - Spring near Horse Creek, S.B.Co., August 1.

#### PLANTAGINACEAE.

304. *Plantago* SP. *eripoda* Torr. - It stands very near *P. eripoda*, Torr.  
has a mass of brownish hairs at the crown, but not so copious as  
in the named species. The ovules are one pair in each cell or some-  
times more; leaves oval lanceolate-linear lanceolate, gradually  
tapering into a margined petiole, with this 4-8 in. long, rather  
thin; spike 8-18 in. long, on its upper half many flowered and  
sparse in the manner of *P. Rugellii*; capsule, as in this, when well  
developed, twice the length of the calyx, circumscissile much be-  
low the middle. - It was collected by Rev. Bates of Valentine, in 1  
1890. He named it *P. lanceolata*, and remarked that he believed it  
to be indigenous. It, certainly, does not belong to *P. lanceolata*.  
If not a variety of *P. eripoda*, it is very near to it. - Platte  
Bottom, Kearney Co., June 15; Pumpkin Seed Valley, B.Co., July 19. -  
The first locality was shown to me by Dr. Hapeman of Minden.

305. *Plantago Patagonica*, Jacq. var. *gnaphalioides*, Gray. - Hills,



Kearney Co., June 15; Prairie, near Venango, Geeser Perkins Co., June 23.

VERBENACEAE.

306. Lippia cuneifolia, Steud. - The peduncles are generally a little longer than the leaves, and the stems are sometimes rooting at the nodes. - Sandy prairies: Phelps Co., June 18; Kiwa Valley, S.B.Co., July 29.

NYCTAGINACEAE.

307. Oxybaphus nyctagineus, Sweet. var. oblongifolius, Gray. - Hill, of Deuel Co., ~~July 8~~ Banner Co., July 10.

308. Oxybaphus angustifolius, Sweet. - Hills: Scott's Bluff, July 24; Kimball, August 12.

309. Abronia fragrans, Nutt. - Valleys: Rush Creek, D.Co., July 2; Lawrence Fork, B.Co., July 8.

*Abronia micrantha!* with 339.

ILLECEBRACEAE.

310. Paronychia Jamesii, T. & G. - Barton hills: Deuel Co., June 23; Scott's Bluff, July 24.

FICOIDEAE.

311. Mollugo verticillata, L. - Sand-draw, Deuel Co., August 24.

*Not in Webber's Catalogue. This plant shows a good varietal difference in the smaller seeds, which moreover lack all but two of the six or more crested ridges on their surface of those of the species. J. G. H. Feb. 27, 1892.*

AMARANTACEAE.

312. Amarantus blitoides, Watson. - Cultivated soil: Rush Creek, July 2; Kiwa Valley, S.B.Co., July 29.

313. Amarantus *blitoides* Wats. - Stem prostrate, terete, and succulent; leaves as those of A. blitoides, but not as rigid; sepals and stamens 5; . Maybe, it belongs to A. Torreyi, Benth., which I have not seen. - In a canon, east of Scott's Bluff, July 24, and on broken land in Pleasant Valley, S.B.Co., July 30. At the latter station, it has become a somewhat troublesome weed. It has received the name "Mountain Purslane." In drying, the succulent becomes wrinkled, and looks as if furrowed, as in A. blitoides, which it then resembles very much. New to Nebraska.

314. Froelichia floridana, Moq. - Sand-hills, Kearney Co., August 29.

315. Froelichia gracilis, Moq. - Leaves oblong lanceolate, mostly radical; calyx, in fruit, with a few sharp tubercles, or nearly even. Not reported for Nebraska. - Sand-draw, Deuel Co., August 24.

CHENOPODIACEAE.

316. Cyclolema platyphyllum, Moq. - Sandy soil: Near Court House Rock, Ch.Co., July 3; Kiwa Valley, S.B.Co., July 30.

317. Chenopodium Fremontii, Watson. var. incanum, Wats. - Not in Webber's Catalogue. - Sandy places: Lawrence Fork, B.Co., July 8; Kiwa Valley, S.B.Co., August 1.

318. Chenopodium leptophyllum, Nutt. - Common in Kearney Co., and in the West. A worse weed than C. album. - Kearney Co., June 13.



in the West. A worse weed than *C. album*. - Kearney Co., June 13.

319. *Chenopodium leptophyllum*, Nutt. var. *oblongifolium*, Wats. - --  
Broken soil, Deuel Co., July 2.

320. *Chenopodium leptophyllum*, Nutt. var. *subglabrum*, Wats. - <sup>A</sup>is as well as the preceding is not in Webber's Catalogue. It seems to be very distinct from the true *C. leptophyllum*. - Hillsides: Scott's Bluff, July 24.

*Fremontii Watson*

321. *Chenopodium* sp. . . . . - I collected some undeveloped specimens of this last year, and sent some to Dr. Watson, remarking that ~~it was~~ <sup>the ones</sup> much like the *C. opulifolium* of Europe, which is credited for North America in DeCandolle's Prodr. Dr. Watson said that it was too undeveloped to identify, but that it probably was a slender variety of *C. album*. This year, I have seen it in several places, growing as well together with *album* as elsewhere. It always grows <sup>in</sup> shady and moist places. The only places <sup>in which</sup> I found it in fruit, ~~was~~ in Carter Canon, S.B.Co., July 26, and in McColligan Canon, D.Co., August 22. As I can not find any description that fits it, will I here give a short one:

Plant about 2 feet high, slender, branched, nearly destitute of mealyiness, except on the calyx, which is very small and carinate; leaves ~~thin~~ very thin, 3-ribbed, 1 1/2-2 in. long, broadly triangular hastate-ovate lanceolate, entire or slightly toothed, mucronate; flowers in very small clusters on the slender branches; seeds easily separated from the pericarp. - Canon in Banner Co., July 6, in bud.

322. *Chenopodium album*, L. - Common. - Carter Canon, together with the last, July 26.

323. *Monolepes chenopodioides*, Moq. - Dry saline soil, Deuel Co. June 27. *Not in Webber's Catalogue.*

324. *Atriplex patula*, L. var. *hastata*, Gray. - Saline soil, near Horse Creek, S.B.Co., August 1.

325. *Atriplex argentea*, Nutt. - It is not given in Webber's Catalogue, but was collected by me, in 1890, in the salt basine near Lincoln. - Saline soil in Kiwa Valley, S.B.Co., July 28.

326. *Atriplex Nuttallii*, Watson. - Canon, east of Scott's Bluff, July 24; Kiwa Valley, S.B.Co., July 31.

327. *Eurotia lanata*, Moq. - Hillsides: Lawrence Fork, B.Co., July 10; Scott's Bluff, July 26.

328. *Copiospermum hyssopifolium*, L. - Canon, east of Scott's Bluff, July 24.

*linearis Ell. var. salsa B.S.P.*

329. *Suaeda diffusa*, Watson. - Saline meadows: Pumpkin Seed Valley, B.Co., July 16; Horse Creek, S.B.Co., August 1.

#### POLYCHONACEAE.

330. *Eriogonum alatum*, Torr. - Hills: McColligan Canon, D.Co., June 26; Lawrence Fork, B.Co., July 8; Big Horn, B.Co. August 8.

331. *Eriogonum flavum*, Nutt. - Cliffs: McColligan Canon, D.Co., June 26; Rush Creek, July 2; Upper Lawrence Fork, K.Co. August 10.



332. Eriogonum annuus, Nutt. - Common in Western Nebraska, on hills and prairies. - Lawrence Fork, B. Co., July 8; Pumpkin Seed Valley, B. Co., July 14; Kiwa Valley, S. B. Co., July 23; Sidney, Ch. Co., Aug. 15.

333. Eriogonum cernuum, Nutt. - This species was collected for the first time in Nebraska, in 1890, by me on a hill in Banner Co., but the specimens were too immature for identification. This year, I have found several new localities. In fact, it is not uncommon in the West. - Court House Rock, Ch. Co., July 4; Wild Cat Mts., B. Co., July 16; Scott's Bluff, July 22; Kimball, Aug. 12; Sidney, Aug. 15.

334. Eriogonum multiceps, Nees. - Court House Rock, Ch. Co., July 4; See Scott's Bluff, July 25. It sometimes varies with long pedicels; Hills south of Scott's Bluff, August 4. (334b).

335. Eriogonum microthecum, Nutt. var. . . . . - This, and also the next, differs from the specimens in the Herbarium of the University of Nebraska, in that in my specimens the nerves of the involucre are barely seen, the leaves are broader, scarcely revolute, and are scarcely glabrate on the upper side. - Prairies in Kiwa Valley, S. B. Co., July 23.

336. Eriogonum microthecum, Nutt. var. *offusum*, T. & G. - Leaves broader, not revolute; stem repeatedly trichotomously and diffusely branched. - North of Kimball, August 12; Not in Webber's Catalogue.

337. Eriogonum ~~corumbosum~~, Benth. - It is not given in Webber's Catalogue, and is not in the Herbarium of the University. - Prairies: Kimball, August 12; Potter, Ch. Co., July 15.

338. Eriogonum brevicaulis, Nutt. - Collected for the first time in Nebraska, this year. - Hills in the Kiwa Valley, S. B. Co., July 23 & 29.

339. Rumex venosus, Pursh. - Hills and sandy soil: Near Chappell, D. Co., June 29; Court House Rock, Ch. Co., July 4.

340. Rumex salicifolius, Weinman. - Sands of Platte, near Horse Creek, S. B. Co., August 1.

341. Rumex ~~sp.~~ . . . . . - I do not know where to place this. It is not *R. altissimus*, as all the valves are grain-bearing. The general appearance is to unlike *R. Britanica*. The valves are not sub-rhomboid as in *R. verticillatus*, and the pedicels shorter. The size of the plant, and the form of the panicle and of the valves are those of *R. salicifolius*; but the leaves are reticulated, and somewhat wavy-margined in the manner of *R. maritimus*. - It seems to be intermediate between the preceding and the following, together with which two it grew on the sands of Platte River, near Horse Creek, S. B. Co., August 1.

342. Rumex maritimus, L. - Sands of Platte, near Horse Creek, S. B. Co., August 1.

343. Polygonum ~~erectum~~, L. (?) - Unusually large and decumbent specimens, growing in water in Lodge Pole Creek, near Sidney, August 12.

344. Polygonum ~~sp.~~ . . . . . - Stem much branched, low, prostrate, branchlets upright with very short joints, nearly covered by the sheaths, which are brown at the base; the scarious tips long and loose, soon lacerate, leaves crowded, oblong, 2-3 lines long, decid-

*approaching var. Fendleri*

*microthecum Nutt. a more densely flowered form only.*

*With 339 there was one sheet of Abronia micrantha Torr. New & Tele.*

*crispus L.*

*aviculare L. seed granular. Lvs. too small for erectum*

*aviculare L. var. parva! = Col. Wright's N. Mex (1891) = Newberry (Oregon) Dallas Texas plant.*



ous; flowers minute, reddish or brownish; seeds shining. It agrees well with the description of *P. minimum*, Wats. or still better ~~well~~ that of *P. Torreyi*, Wats., but neither is reported from as far east as Nebraska. It, maybe, is but a small variety of *P. aviculare*. The locality indicates, however, that it, without any doubt, <sup>is</sup> indigenous. Near a spring, in Deuel Co., August 24.

345. *Polygonum ramosissimum*, Michx. - Very variable. - Sand-draw, D.Co., August 24; Lawrence Fork, B.Co., July 8; Carter canon, S.B.Co., July 26.

346. *Polygonum tenue*, Michx. - Hills in Banner Co., July 10.

347. *Polygonum lapatifolium*, L. - Lodge Pole Creek, near Kimball, August 12.

348. *Polygonum lapatifolium*, L. var. *incanum*, Koch. - Lawrence Fork, B.Co., July 8.

349. *Polygonum Muhlenbergii*, Wats. - Platte River, near Horse Creek, S.B.Co., August 1; Lodge Pole Creek, near Kimball, August 12.

350. *Polygonum Convolvulus*, L. - Rail Road bank, near Kimball, Aug. 12.

351. *Polygonum dumetorum*, L. var. *scandens*, Gray. - The wings of the fruits of nearly all my specimens are more or less lobed. - McColligan Canon, D.Co., August 26.

Elaeagnaceae.

352. *Shepherdia argentea*, Nutt. - In fruit, on the islands in Platte River, near Gering, S.B.Co., July 24.

EUPHORBACEAE.

353. *Euphorbia petaloidea*, Eng. - Variable; leaves from linear to broadly oblong; appendages from oval oblong to nearly triangular and small; seeds from gray to reddish. - Sand-draw, Deuel Co., June 25 & August 24; Scott's Bluff, July 22; Kiwa Valley, July 30; McColligan Canon, D.Co., August 22.

354. *Euphorbia serpyllifolia*, Pers. - Rail road bank, Curtis, Frontier Co., June 22; Kiwa Valley, S.B.Co., July 30.

355. *Euphorbia glyptosperma*, Eng. - Lawrence Fork, B.Co. July 8; Kiwa Valley, S.B.Co., July 28; Sands of platte, near Horse Creek, August 1; McColligan Canon, D.Co., August 22; Sands of South Platte, Big Springs, August 25.

356. *Euphorbia* <sup>*serpyllifolia* Pers.</sup> ~~sp.~~ . . . . . - It is near to *P. serpyllifolia* & *P. glyptosperma*; upright, much branched; leaves linear oblong, a little oblique at the cuneate base, short petioled, serrate at the apex, about 1/2 in. long; peduncles <sup>in</sup> axillary, leafy clusters; pods angled; seeds oblong, brownish, 4-angled, minutely wrinkled or pitted. The general appearance is somewhat like that of *P. glyptosperma*, from which it differs in the seeds. - Cultivated soil, 6 miles south of Potter, Ch.Co., August 13.

357. *Euphorbia maculata*, L. The leaves are unusually broad as in *E. humistrata*, and the involucre silky; the seeds oblong, sharply angled, with about 4 blunt ridges. - Upper Lawrence Fork, August 12.



358. Euphorbia Fendleri, T. & G. - Collected for the first time in Nebraska, by me in 1890. - Upper Lawrence Fork, K. Co., August 12.

359. Euphorbia hexagona, Nutt. - In sand, common. - Lawrence Fork, B. Co., July 8; McColligan Canon, D. Co., August 22; Sand-draw, D. Co., August 24.

360. Euphorbia marginata, Pursh. - Near Sidney, Ch. Co., August 18.

361. Euphorbia sp. cuphosperma, Boiss. (1). - All specimens I collected last year were smooth, wherefore I did not believe that they belonged to E. dentata. As the seeds are not ovate-globular, but ovate pyramidal, more or less 3-4-angled, obliquely truncate at the base, grooved on the shorter side, and rather prominently tuberculated; so I named it E. cuphosperma, although this has only been collected at the Mexican Boundary. All specimens collected this year, at the same station, are more or less hairy, and the leaves broader and more dentate. It is undoubtedly nearly related to E. dentata, if not a variety of it. The leaves are linear or linear lanceolate, seldom broader, slightly dentate, and somewhat revolute. - Canon, near Lawrence Fork, B. Co., July 9.

The seed is exactly like that from Myrica M. Mex. M. 1834.

362. Euphorbia montana, Eng. - Hills: Near McColligan Canon, D. Co., June 26; Near Lawrence Fork, B. Co., July 8.

363. Croton Texensis, Mill. - Sand: Lawrence Fork, B. Co., July 8; Rush Creek, D. Co., July 2; Potter, Ch. Co., August 10.

#### URTICACEAE.

364. Celtis occidentalis, L. - Not uncommon in canons and near water. In some, rocky places it becomes only a small tree, with narrow leaves and smooth, not corky bark. - Sidney, Ch. Co., August 10.

365. Urtica gracilis, Ait. - Common throughout the state. - Canon, near Big Horn, B. Co., August 10.

366. Parietaria Pensylvanica, Muhlenberg. - Shady places: Curtis, Frontier Co., June 22; Lawrence Fork, B. Co., July 9.

#### PLATANACEAE.

367. Platanus occidentalis. - Some young trees (maybe, raised from seeds) on the banks of Platte River in Kearney Co. It has been reported from only the very S.E. corner of Nebraska. July 25.

#### SALICINAE.

368. Salix Longifolia, Muhl. - A very variable species, Common. - Lawrence Fork, July 9; On Platte Bottom, near Horse Creek, August 1; and in Mitchel Valley, S.B. Co., August 1; Kimball, August 12; Sidney, at Lodge Pole Creek, August 18.

369. Salix Longifolia, Muhl. var. . . . . - Leaves shorter, - male female aments short, capsule short, ovate. Only a small bush, very often monoecious. Platte, Kearney Co., June 16; Canon, Fern Gopher Co., June 20; Carter Canon, S.B. Co., July 26; Horse Creek, August 1.

370. Salix longifolia, Muhl. var. . . (?) . . Stem blue. Carter Canon, July 26.

371. Salix cordata, Muhl. var. vestita, And. - Lawrence Fork, B. Co., July 8; Carter Canon S.B. Co. July 26. Neither flowers nor fruit seen.



*angustifolia* James: The difficulty probably due to immature leaves while in herbaria we generally get them young.

372. Populus sp. . . . . . When approaching the Carter Canon, in Scott's Bluff County, I saw at a distance some dark green trees with pyramidal crown. Not knowing any other tree with dark foliage and pointed top, growing in the region, I took it for unusually tall specimens of *Juniperus Virginiana*. Coming a little nearer I saw my mistake. It was a *Populus*, unlike all I have seen. As the buds were very balsamiferous and the leaves cuneate at the base, I thought it was nothing but *P. angustifolia*, which I have never seen growing. When at home, I compared it with my specimens of this poplar, collected by Mr. A.T. Williams in the Hat Creek Basin in north-eastern Nebraska, and I saw at once the difference between the two. Although the leaves of my poplar are rhomboid ovate, cuneate at the base, and not whitened beneath, do I believe, that, if not distinct from both, it is a variety of *P. balsamifera* rather than of *P. angustifolia*. The leaves are rhomboid, on petioles 1-2 inches long (in *P. angustifolia*, they are only 1/2-1 inch), generally long acuminate, shining on both sides, regularly crenate except at the cuneate base. The teeth are larger, more distant, and more regular than in *P. angustifolia*. Dr. Bessey states that the general appearance of the true *P. angustifolia* is more that of a willow than that of a poplar, which is not at all the case with this. The general growth, the size, form, and color of the trunk were somewhat between those of *P. balsamifera* and *P. angulata*, although most like the former. The long and slender petioles reminded of the latter or even of the Quaking Aspen. Dr. S. Watson said in his Revision about *P. angustifolia*: "Two forms are spoken of, the Yellow Cotton Wood, making fair lumber, and the Black Cotton Wood, common and extensively planted in Utah, but the wood is considered worthless." Maybe this is the former. I saw it growing only at one place, viz. in Carter canon, where it grew along the brook, together with *P. angulata*. The grove contained over 100 trees of this poplar, from 40 to 60 feet high, some measuring 18 inches in diameter. - Carter Canon, B. Co., July 26.

#### IRIDACEAE.

373. *Sisyrinchium acaes*, Cav. - Near a spring, south of Pumpkin Seed Valley, B. Co., July 6. New to Nebraska.

*Nuttallii* Watson.

#### LILIACEAE.

374. *Allium sticticum*, Fraser. - It is not recorded in Webber's Catalogue. I found it growing at several places on the prairies; it was out of bloom and only a few specimens were collected. - Prairie in Dewel Co., June 25.

375. *Yucca angustifolia*, Pursh. - On the hills of Western Nebraska: - Canon in Gosper Co., June 20; Scott's Bluff, July 25.

376. *Pritellaria atro-purpurea*, Nutt. - In fruit only, near Scott's Bluff, July 25.

*Nuttallii* Gray. (It has the large seeds of this species.)

377. *Zygadenus* sp. . . . . . In fruit only. As I have not seen it in bloom, and as there are no specimens in the Herbarium like it, I can not determine it; but believe that it belongs to this genus. - Hills of Pumpkin Seed Valley, B. Co., July 6.

#### JUNCACEAE.



*Callichaet* Det

## JUNCACEAE.

378. Juncus filiformis, L. (?). - North Platte River, Ch. Co., July 3.

379. Juncus tenuis, Willd. - Wet prairie, Kearney Co., June 15; - Pumpkin Seed Valley, B. Co., July 16.

379b. is a variety with channeled leaves, lax panicle, and very long bracts. - Pumpkin Seed Valley, B. Co., July 6.

380. Juncus bufonius, L. - It is not given in Webber's Catalogue, but has been collected in Nebraska before, and by me in 1890. ---- North Platte River, Ch. Co., July 3; Carter Canon, S. B. Co., July 23; Canon near Big Horn, B. Co. August 8.

381. Juncus nodosus, L. var. megacephalus, Torr. - Platte River, near Horse Creek, S. B. Co. August 1.

382. Juncus nodosus, L. var. megacephalus Torr. (f). - Sidney, Ch. Co. Aug. 16.

## TYPHACEAE.

383. Typha latifolia, L. - In Lodge Pole Creek, east of Potter, Ch. Co., August 17.

384. Sparganium eurycarpum, Eng. - The leaves before dry were nearly triangular. - In Lodge Pole Creek, east of Potter, Ch. Co. August 17.

## LEMNACEAE.

385. Lemna minor, L. - Lawrence Fork, B. Co., July 10.

386. Lemna perpusilla, Torr. (?). - It might be a variety of L. minor, due to the condition of the water, in which it grew. The frond is oblong with distinct, although not prominent nerves. The root is slender up to 2 inches long. - Spring near Horse Creek, S. B. Co. August 1.

## ALISMACEAE.

387. Alisma Plantago, L. var. Americana, Gray. - Low ground, Mitchell Valley, S. B. Co., August 4.

388. Sagittaria variabilis, Eng. - Pumpkin Seed Creek, B. Co. July 16; Horse Creek, S. B. Co., August 1.

## NAJADACEAE.

389. Zannichellia palustris, L. - Lawrence Fork, in the creek, B. Co., July 11.

390. Triglochin maritima, L. - Low ground: Platte River, Kearney Co., June 15; Pumpkin Seed Valley, B. Co., July 17.

## CYPERACEAE.

391. Cyperus aristatus, Rottb. - Sands of Platte River near Horse Creek, S. B. Co., August 1.

392. Cyperus Schweinitzii, Torr. Wet prairies: Kearney Co., June 15; Devel Co., June 25.



393. Scirpus pungens, Vahl. - The culm has often only one spike-  
let. - Lawrence Fork, B. Co., July 8.

394. Scirpus lacustris, L. - Canon, Kiwa Valley, S. B. Co., July 30.

395. Scirpus maritimus, L. - Platte River, Kearney Co., June 13.

396. Scirpus atrovirens, Muhl. var. pallidus, Britton. - Low Ground,  
Kiwa Valley, S. B. Co., July 30.

397. Eliocharis acicularis, R. Br. - Wet prairie, Dewel Co., June  
27; Lodge Pole, Ch. Co., August 18.

398. Eliocharis ~~sp.~~ <sup>palustris (L.) R. & S., var. glaucescens Gray</sup> . . . . . Culm somewhat flattened, striate;  
achenes obovate, muricate. It might be a variety of E. compressa,  
which has not been collected in Nebraska, but the achenes are not  
strictly triangular, although a little thickened on the back. Dr. E.  
Britton mentions in his Revision, that specimens of E. palustris  
with flattened culm have been collected in Mo.-Texas. This is not  
E. palustris, at least not E. palustris of Europe. - Wet prairie,  
Kearney Co., June 13.

399. Fimbristylis spadiosa, Vahl. var. castanea, Gray. - It is not  
given in Webber's Catalogue, but was collected in 1889 by Rev. Ba-  
tes of Valentine, Neb. - Scott's Bluff, July 23; Near Horse Creek, S.  
B. Co., August 1.

400. Carex ~~sp.~~ <sup>filiformis Nutt.</sup> . . . . . This is named "Nigger Heads",  
"Bunch Grass", "Wire Grass", &c. The first two names it <sup>has</sup> received,  
because it grows in very dense, hard tufts; the last, because its  
fine roots are black and, when dry, tough as wire. The ground on  
which it grows is regarded as the best, but it is very hard to  
break on account of the tufts, which do not rot for several years.  
It was out of bloom, when I reached Western Nebraska. Only one spe-  
cimen was secured. I have not determined to which species it belongs.  
This is also the case with all my collection of the genus Carex.  
I have not classified a single American Carex. Supposing them as  
hard as the European ones, I leave them undetermined. - Prairie,  
Dewel Co., June 25.

401. Carex ~~sp.~~ <sup>navasda Booth, var. delilis Bailey</sup> . . . . . - Prairie, Dewel Co., June 27.

402. Carex ~~sp.~~ <sup>gracilis Bailey</sup> . . . . . Wet prairie, Kearney Co., June 13.

~~402. Carex <sup>Muhlenbergii Schkuhr.</sup>~~  
403. Carex gracilis Bailey. . . . . Wet prairie, Kearney Co., June 13.

404. Carex filiformis L. Lawrence Fork, B. Co., July 10.

and "stricta ~~Lam.~~ Jamensis Torr.

#### GRAMINEAE.

✓ 405. Panicum capillare, L. - Hill, Kiwa Valley, S. B. Co., July 30; -  
Sidney, Ch. Co., August 18.

✓ 406. Panicum virgatum, L. - <sup>var. glauca</sup> Prairie, near Horse Creek, S. B. Co., Au-  
gust 1.

✓ 407. Panicum virgatum, L. var. confortum, Gray Vasey. - Not reported  
for Nebraska. - Lawrence Fork, B. Co., July 8. ---

✓ 408. Panicum scoparium, Lam. - Sand-hills, Kearney Co., June 13.



- ✓ 409. Panicum dichotomum, L. var. barbulatum, (Michx.) Gray. - Not reported for Nebraska. Platte River, Kearney Co., June 15.
- ✓ 410. Panicum Crus-Galli, L. var. Muhlenbergii. In my belief, this is indigenous, as it was found in a canon, several miles from any habitation. Furthermore, the country in Kiwa Valley has been cultivated very little under cultivation. In my specimens, the awns are short and the glumes hispid. - Canon in Kiwa Valley, S.B.Co. July 28.
- ✓ 411. Cenchrus tribuloides, L. - Rare in the West. Cultivated ground, south of Potter, Ch.Co., August 15.
- ✓ 412. Spartina cynosuroides, (L.) Willd. - Near water, Platte River, S.B.Co., July 28; Horse Creek, August 1.  
Spartina gracilis was seen near Kimball.
- ✓ 413. Leersia oryzoides, Swartz. - Lodge Pole Creek, east of Potter, Ch.Co., August 15.
- ✓ 414. Andropogon <sup>provincialis</sup> virgatus, Muhl. - Common throughout the state. --- East of Potter, O.Co., August 15.
- ✓ 415. Andropogon scoparius, Michx. var. .... This species is described in the last edition of Gray's Manual as being having lower sheaths and narrow leaves hairy. All Nebraska specimens I have seen are wholly glabrous and somewhat glaucous. - Lawrence Fork, B.Co., July 4; Big Horn, S.Co., August 8; Sidney, O.Co., August 20; McColligan Canon, B.Co., August 25.
- ✓ 416. Andropogon Hallii, Hackel. - Hills of Western Nebraska: Lawrence Fork, B.Co., July 10; Cedar Canon, S.B.Co., July 28; East of Potter, Ch.Co., August 15.
- ✓ 417. Chrysopsis natan, Benth. - Cedar Canon, S.B.Co., July 28; Big Springs, B.Co., August 25.
- ✓ 418. Phalaris Canadensis, L. - Minden, Kearney Co., June 15.
- ✓ 419. Phalaris arundinacea, L. - Platte River, Kearney Co., June 15.
- ✓ 420. Alonecurus gemellatus, L. - Wet prairie, Deuel Co., June 15.
- ✓ 421. Alonecurus cristatus, Michx. - Carter Canon, S.B.Co. July 28.
- ✓ 422. Aristida purpurea, Nutt. - Hills: Curtis, Frontier Co., June 3; Kiwa Valley, S.B.Co., July 28; Sidney, August 1.
- ✓ 423. Aristida purpurea, Nutt. var. Hookeri, Trin. - My specimens are like those of this variety in the Herbarium of the University of Nebraska; but I can not find any description. - Sand-hills of Kearney Co., June 15.
- ✓ 424. Stipa comata, Trin. & Rup. - It takes the place of S. spartea in the West. - Sand-hills of Kearney Co., June 15; Prairies: Perkins Co., June 3; Deuel Co., June 15; Banner Co., July 15.
- ✓ 425. Stipa viridula, Trin. - Sand-hills of Perkins Co., June 15; McColligan Canon, S.B.Co., July 28; North Platte, Ch.Co., July 2.
- ✓ 426. Oxyria micrantha, Pursh. - A very delicate green on high



soil. Lawrence Fork, B. Co., July 3.

✓ 427. Oryzopsis cuspidata, Benth. - The most beautiful grass in Nebraska. Not uncommon west. - McColligan Canon, D. Co., June 26; Rush Creek, D. Co., July 2; Platte River, Ch. Co., July 3.

✓ 428. Muhlenbergia ~~flavescens~~ glomerata, B. S. P. - Lodge Pole near Sidney, Aug. 13.

✓ 429. Muhlenbergia pungens, Thurb. - It is called "Sand Grass" in Kearney Co. - Sand-hills of Kearney Co., June 13; In the "Bad Lands", north of Scott's Bluff, July 24.

✓ 430. Sporobolus cuspidatus, Torr. - Hills: Big Horn, B. Co., August 1.

431. Sporobolus cuspidatus, Torr. var. . . . . This is undoubtedly nothing but a low tufted form of S. cuspidatus, although the lower glumes are only half the length of the upper. - Hills: Freeport, B. Co., July 13; Big Horn, August 3.

✓ 432. Sporobolus cryptandrus (Trin) Gr. - Platte River, Kearney Co., June 15; McColligan Canon, D. Co., June 26; Potter, Ch. Co., August 1.

✓ 433. Sporobolus cryptandrus var. near flexuosus . . . . . Culm strict, slender; leaves more or less involute; panicle long and open, branches mostly alternate and capillary, naked below. - Dry, sandy soil near Scott's Bluff, July 24.

✓ 434. Sporobolus airoides, Torr. - Common on low ground. Platte River Ch. Co., July 3; Pumpkin Seed Valley, B. Co., July 13; Horse Creek, S. B. Co., August 1; Sidney, August 13.

✓ 435. Sporobolus asperifolius M. & M. - Carter Canon, S. B. Co., July 26.

✓ 436. Sporobolus ~~confusus~~ confusus var. Thurn. (?) . Depauperate specimens of a Sporobolus, undoubtedly of the named. - Sands of Platte River, near Horse Creek, S. B. Co., August 1.

✓ 437. Agrostia alba, L. - The "Red-top" in the East regarded as one of the best grasses for hay, is regarded by western stockmen nearly as good for nothing. - Platte River, near Horse Creek, S. B. Co., Aug. 1.

✓ 438. Calamagrostis longifolia, Hook. - Low ground: Pumpkin Seed Valley, B. Co., July 13; Carter Canon, July 26; Near Platte, July 23; Near Horse Creek, August 1.

✓ 439. Calamagrostis Canadensis, Michx. - Platte River in Kearney Co., June 13.

✓ 440. Calamagrostis stricta, Trin. - Platte River, Cheyenne Co., July 3; Scott's Bluff Co., July 24.

441. Calamagrostis confinis, Nutt. (?) . - Not reported for Nebraska. Platte River, Kearney Co., June 13.

✓ 442. Avena elatior. - New to Nebraska. - Lincoln, June 12.

✓ 443. Schedonardus Texanus, Steud. - Platte River, Ch. Co., July 3; North of Kimball, August 12.

✓ 444. Bouteloua oligostachya, Torr. - It is regarded as the best forage plant of the high plains, and furnishes good pasturage even in the winter. - Rush Creek, D. Co., July 3.



- ✓ 445. Bouteloua hirsuta, Lag. - Hills: Lawrence Fork, B. Co., July 9; Upper Lawrence Fork, K. Co., August 12.
- ✓ 446. Bouteloua racemosa, Lag. - Hills: Rush Creek, B. Co., July 3.
- ✓ 447. Buchloe dactyloides, Eng. - The "Buffalo Grass" is slowly disappearing from eastern Nebraska, but is yet one of the principal grasses of the high plains. - Phelps Co., June 18; Kearney Co., June 15.
- ✓ 448. Phragmites communis, Trin. - Platte, near Horse Creek, B. B. Co., August 1.
- ✓ 449. Manroa squarrosa, Torr. - Frequents the "Prairie Dog Towns" Sand, Rush Creek, B. Co., July 2; Big Horn, B. Co., August 8.
- ✓ 450. Koeleria cristata, Pers. - Low specimens from the prairies of Kearney Co., June 13; Devel Co., June 25.
- ✓ 451. Koeleria cristata, Pers. var. gracilis, Gray. - Prairie, Devel Co., June 25.
- ✓ 452. Eatonia obtusata, Gray. - Prairies, Wild Cat Mts., B. Co. July 16; North of Scott's Bluff, July 23.
- ✓ 453. Eatonia ~~sp.~~ obtusata var. robusta. The specimens are not fully developed. The leaves are broad (3-4 lines), ligules conspicuous, truncate, toothed and divided, the spike is more compound, with longer, more open branches; spikelets, and the whole plant more robust than E. obtusata, which it otherwise resembles. - Canon in Kiwa Valley, S. B. Co., July 27.
- ✓ 454. Catabrosa aquatica, (L) Beauv. - Lodge Pole, near Sidney, Aug. 19.
- ✓ 455. Distichlis ~~spicata, Green. var. stricta~~ maritima var. stricta, Thurber. - Salt marshes, R. R. Bank, Curtis, Frontier Co., June 22; Platte River, Ch. Co., July 3; Big Horn, B. Co., August 8.
456. Poa alpina, L. - It is not given in Webber's Catalogue, but was collected, in 1889, by A. T. Williams in War Bonnet Canon. - McColligan Canon, D. Co., June 26.
- ✓ 457. Poa tenuifolia, Nutt. var. . . . (?). It agrees with the description of this species, but it is not densely tufted; the panicle is rather loose close; the rays are not distant, spreading. It is not uncommon on low land. - Kearney Co., June 13; Cheyenne Co., July 3.
- ✓ 458. Poa ~~nevadensis~~ tenuifolia var. (?). - This grows on dryer soil and is more tufted than the preceding. - Lawrence Fork, B. Co., July 8.
- ✓ 459. Glyceria ~~distans~~ var. arvensis, (L) Wahl. - Lodge Pole, near Sidney, Aug. 19.
- ✓ 460. Glyceria nervata, Trin. - Lodge Pole near Potter, Ch. Co., Aug. 18.
- ✓ 461. Glyceria ~~sp.~~ Pro insufficient. Only a few undeveloped specimens were collected in Lawrence Fork, B. Co., July 9. It seems to be somewhat near G. obtusa, but the panicle is smaller, more open, and the glumes more acute.
- ✓ 462. Festuca tenella, Willd. - Sand-hills, Kearney Co., June 13; - Phelps Co., June 18; Hills, Devel Co., June 25.



463. Agropyrum glaucum, P. & S. var. . . . . The species of the genus Agropyrum are very difficult to distinguish. Especially is this the case with repens, glaucum, and tenerum, which all seem to run together. I have given each form a separate number; not that I regard them distinct, but mere forms. - In the first, the stem is slender, the spike narrow, the leaves involute, and the glumes pointed. It approaches somewhat A. tenerum. - Scott's Bluff, July 24.
464. Agropyrum glaucum, P. & S. var. . . . . More stout, leaves involute, glumes blunt. - Lawrence Fork, B. Co., July 8.
465. Agropyrum glaucum, P. & S. var. . . . . Stout, leaves involute, glumes pointed. - This is the most common form. - Lawrence Fork, B. Co., July 8; Prairie, Phelps Co., June 13.
466. Agropyrum glaucum, P. & S. var. . . . . Leaves flat, glumes acute or cuspidate. - Low prairie, Kearney Co., June 13.
467. Agropyrum Sp. . . . . Probably a variety of A. glaucum with the spikelets distorted by ergot. The leaves are short, involute, the spikelets few, many-flowered and crowded; glumes less plainly nerved, downy, acute. - Kimball, August 12.
- ✓ 468. Agropyrum tenerum, Vasey. var. . . . . Weak and slender, leaves involute, glumes cuspidate or awned. - McGolligan Canon, B. Co., June 23; Pumpkin Seed Valley, B. Co. July 6; Carter Canon, S. B. Co., July 23.
- ✓ 469. Agropyrum tenerum, Vasey. var. . . . . - Strict, leaves involute, setaceous, glumes blunt. - Pumpkin Seed Valley, July 13.
- ✓ 470. Agropyrum tenerum, Vasey. var. . . . . - Slender, leaves broader, flat; glumes cuspidate or awned. - Lawrence Fork, B. Co., July 8; Canon in Pumpkin Seed Valley, July 6; Carter Canon, S. B. Co., July 23.
- ✓ 471. Agropyrum tenerum, Vasey. var. . . . . It seems to be a luxurious form of A. tenerum, near the last, but with much larger spikelets, connecting it with the broad leaved forms of A. glaucum. Scott's Bluff, July 24.
- ✓ 472. Elymus Sitanion, Schult. - It is not given in Webber's Catalogue, although it has been collected at several places in Nebraska. It seems to be not very uncommon, but is sometimes confounded with Hordeum jubatum. - Prairie, Rush Creek, D. Co., July 2; Platte Bottom, S. B. Co., August 4.
- ✓ 473. Elymus Canadensis, L. - Very variable, sometimes with the spikes 6 in. long <sup>or more</sup> and the leaves 3/4 inch wide. Low land and near water: Lawrence Fork, B. Co., July 8; Platte River, S. B. Co., July 2; Mitchell Valley, S. B. Co., August 4.

#### CONIFERAE.

474. Juniperus Virginiana, L. var. . . . . The Red Cedar of Eastern Nebraska is a good sized tree, with conical crown, with the branches from near the ground. The leaves are, as usually, of two kinds, viz. on the younger branches awl-shaped, and on the older triangular in outline, but generally longer than broad. The Red Cedar of the low-lands and canons of Western Nebraska differs not ma-



terially from the eastern form, but on the Wild Cat Mountains and other crags in Banner and Scott's Bluff Counties, there grew a low, scraggy tree, about 12-18 feet high, with rounded top, and the stem free from branches below. The color of the trunk was bright red as in *Pinus resinosa*, and that of the branches grayish. The branchlets were 4-angled, crowded with very small, broadly triangular leaves, which are about as broad as long, resembling more those of *J. Sabina* var. *procumbens*. I can not remember that I saw any awl-shaped leaves at all. The berries are on straight peduncles as in *J. Virginiana*, but smaller, scarcely 2 lines in diameter, with <sup>12</sup>angled and grooved seeds. Dr. Engelman states that among the foot hills of Pike's Peak, the trees of *J. Virginiana* have the size and shape of an apple tree, with a rounded, spreading top. Dr. Bessey remarks that he also was struck by this peculiar form of the Red Cedars at Manitou, Col., which is not very far from Pike's Peak. This is undoubtedly the same variety. The Red Cedars of the North Platte Region have also attracted the attention of Nebraska nurserymen, to which fact Dr. Bessey refers in his List of Trees and Shrubs of Nebraska. -- Wild Cat Mountains, B. Co., July 13.

#### EQUISETACEAE.

475. *Equisetum limosum*, L. var. - This has sometimes been named *E. laevigatum*, as the branches are very few and sometimes none. I took it at first for *E. robustum* or *hiemale*, but it lacks the black girdle. - Platte River, Kearney Co., June 13.

476. *Equisetum laevigatum*, Braun. - Wet prairie, Kearney Co., June 13.

477. *Equisetum variegatum*, Schleich. - Wet prairie, Kearney Co., June 13.

#### FILICES.

478. *Aspidium Thelypteris*, (L.) Sw. - Fronds only in a grassy marsh near Platte River, Kearney Co., June 13.

479. *Heilanthes lanuginosa*, Nutt. - It is not given in Webber's Catalogue, but has been collected before in Nebraska, and by me in 1896. - On exposed rocks, near Big Horn, B. Co., August 8.

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